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The Self-Employment Process: A Discourse of Psychological  
Attributes and Entrepreneurial Socialization

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**The Self-Employment Process: A Discourse of Psychological Attributes and  
Entrepreneurial Socialization**

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*“Think big and don’t listen to people  
Who tell you it can’t be done  
life’s too short to think small”*

Tim Ferriss

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## Summary

This dissertation presents a discussion of the role of psychological attributes and entrepreneurial socialization in the self-employment process. Self-employment process is considered to involve four components; intentions, entry, success and persistence/commitment. Burton, Sørensen, and Dobrev (2016) noted that entrepreneurship research has primarily focused on founding new businesses or transitions into entrepreneurial roles as ends in themselves. They argue that this approach tends to ignore that entry and exit from entrepreneurship carries career transition connotations. By focusing on the self-employment process, the dissertation to some extent pays attention to the psychological and socialization factors that facilitate transition into self-employment as a feasible alternative to traditional salaried employment, as well as a path to avoid or get out of unemployment. Therefore, self-employment is presented in this dissertation as a path to achieving successful career life.

Research on protean career behaviors emphasizes that individuals should take more control over their career development process (Briscoe & Hall, 2006; Lent & Brown, 2013; Sullivan & Baruch, 2009). Particularly, the importance of flexibility in career choices and career paths is highlighted because careers are no longer systematic (Arnold, 2001; Baruch, 2004), hence individuals do not have to stick to their learned trades or to traditional organizational employment to achieve success. Rather career mobility, which involves frequent transitions to and from different career trades, has become common. Self-employment presents an opportunity for individuals to self-determinedly take charge of their career development. Not only because of autonomy at work, but it is the most available employment opportunity in most parts of the world, thanks to the constantly changing dynamics in the labor market. At the close of 2000s, the world plummeted into an economic and financial crisis that resulted into turbulence in the labor market. Job insecurity and unemployment increased to new record levels, which remain high to present day congruent to Reinhart and Rogoff's (2009) claim that prolonged unemployment crises often occur in the aftermaths of economic crises. Hence, self-employment has increasingly become an important career path in many countries. Moreover, entrepreneurship has also become an important contributor to economic growth and resilience facilitated by the movement from industrial to service-driven economies.

The studies presented in this dissertation explore a range of psychological and socialization factors that facilitate the processes of formation of intention to pursue a career in self-employment, actual entry into self-employment, success, as well as commitment to

remain self-employed. Research often treats these components of the process as separate subjects. However, the experiences at each of these stages of the entrepreneurial process, from the careers perspective (Burton et al., 2016) have implications for remaining or exiting from the self-employment. Particularly, two patterns can be observed from this dissertation. First, the formation of self-employment intention and its association with self-employment entry. Second, entrepreneurial success and its implications for commitment to self-employment as a career path. The purpose of the dissertation was to establish the self-employment trajectory from development of intention to success and commitment. However, this is only possible in a very long period. Literature shows, for example, that the study of association between intention and entry alone is best predictable after 18 years (Schoon & Duckworth, 2012). Therefore, the present studies could not observe the entire trajectory. But rather pays attention to personal attributes and contexts proximal to the individual that shape the intention, movement into, success and commitment to self-employment career path. Particularly, the studies examine the role of psychological attributes including personality, cognitive styles, moral and cultural intelligences, psychological capital, and entrepreneurial attitudes. Concerning the contextual factors, attention is paid to entrepreneurial socialization processes comprising of entrepreneurship mentoring and culture. The culture question is addressed at both personal and national level.

Consequently, the manuscripts address four pertinent research questions. These questions are central to the understanding of the role of psychological and socialization factors in the self-employment process, and also understanding of self-employment as a career path, rather than just a means of establishing and managing businesses. The research questions are:

1. How do Protean attributes and socialization factors work together to influence readiness to go into business?
2. How does one's cognitive attributes and cultural values affect intentions to make a career in self-employment?
3. What psychological attributes are necessary for the effectiveness of entrepreneurial mentoring in leading to higher self-employment intentions and entry?
4. What personal attributes and socialization factors are critical for the realization of different entrepreneurial outcomes?

These research questions have been answered with robust results presented in nine manuscripts. The first two manuscripts address research question one. Based on person-fit perspective, these manuscripts revealed that entrepreneurial intention is associated with

protean attributes including personal initiative, flexibility, and career orientation. However, the effect of personal initiative and career orientation were only substantial among student samples, while the effect of flexibility was observed among graduates, and not among students.

Manuscripts #3 and #4 are dedicated to answering research question two. Results in these manuscripts show support for Theory of Planned Behavior (TPB) but further indicate that there are possible interactions among antecedents of intention. Particularly the results indicate that locus of control (control beliefs) impact on self-employment intentions via entrepreneurial attitudes. Yet the direct and indirect effects were moderated by individualistic normative beliefs. In addition, results especially in Manuscript #3 reveal interactive effects of personal cultural and moral values (risk aversion and moral potency) and cognitive style on self-employment intention of unemployed young people. Individuals using adaptive cognitive style reported strong self-employment intentions. However, those using intuitive style also reported strong self-employment intention when risk aversion is low, and when moral potency is high.

Results presented in Manuscripts #5 and #6 answer research question three. Once again the interaction effects of entrepreneurial socialization (mentoring) and personal attributes (self-determination/ autonomy and psychological capital) on self-employment intentions were confirmed. Results of a longitudinal study (Manuscript #6) further support TPB demonstrating that individuals with higher entrepreneurial intentions were more likely to go into self-employment after graduating from university. However, cross-cultural differences were observed and are discussed.

Lastly, in regard to research question four; findings presented in Manuscripts #7 - #9 generally indicate that personal attributes, specifically psychological capital and behavioral cultural intelligence, were associated with both subjective and objective outcomes including psychological needs satisfaction, meaning in life, entrepreneurs' job satisfaction, entrepreneurial performance and growth, as well as income. Satisfying the need for autonomy was also associated with other subjective outcomes. Moreover, most of these outcomes as well as psychological capital had substantial effect on one's commitment to the self-employment career path.

## Zusammenfassung

Diese Dissertation stellt eine Diskussion über die Rolle von psychologischen Attributen und unternehmerischer Sozialisierung im Selbstständigkeitsprozess dar. Der Prozess der Selbstständigkeit wird unter Beachtung von vier Komponenten betrachtet; Intentionen, Eintritt, Erfolg und Beharrlichkeit. Burton, Sørensen und Dobrev (2016) merkten an, dass sich die Forschung zu Selbstständigkeit hauptsächlich auf die Neugründung von Unternehmen oder auf die Übergänge in die unternehmerische Rolle als Selbstzweck fokussiert. Sie argumentieren, dass dieser Ansatz ignoriert, dass der Eintritt in die und der Austritt aus der Selbstständigkeit Karriereübergänge darstellen. Mit dem Fokus auf den Prozess der Selbstständigkeit richtet diese Dissertation Aufmerksamkeit auf psychologische und Sozialisationsfaktoren, die zum einen den Übergang in die Selbstständigkeit als eine mögliche Alternative zu den traditionellen fest bezahlten Jobs erleichtern und zum anderen einen Weg bieten, um Arbeitslosigkeit zu vermeiden. Daher betrachtet diese Dissertation die Selbstständigkeit als eine Möglichkeit für eine erfolgreiche Karriere. Forschung zu proteischen Karrieren betont, dass Menschen mehr Kontrolle über den Entwicklungsprozess ihrer Karriere übernehmen sollten (Briscoe & Hall, 2006; Lent & Brown, 2013; Sullivan & Baruch, 2009). Besonders betont wird die Wichtigkeit von Flexibilität in Karriereentscheidungen und Karrierewegen, weil Karrieren nicht länger systematisch sind (Arnold, 2001; Baruch, 2004). Personen müssen nicht mehr an ihrem gelernten Beruf oder an traditionellen festen Beschäftigungen festhalten, um erfolgreich zu sein. Stattdessen ist Mobilität in der Karriere, was häufige Übergänge zwischen verschiedenen Berufen beinhaltet, eher die Regel geworden. Selbstständigkeit bietet eine Möglichkeit, selbstbestimmt Verantwortung für die Karriereentwicklung zu übernehmen. Neben der hohen Autonomie ist sie dank der hohen Dynamik des Arbeitsmarktes fast überall auf der Welt auch die am besten verfügbare Beschäftigungsmöglichkeit. Ende der 2000er löste eine globale wirtschaftliche und finanzielle Krise Unruhe auf dem Arbeitsmarkt aus. Arbeitsplatzunsicherheit und Arbeitslosigkeit stiegen auf Rekordhöhen, die bis heute hoch bestehen. Dies entspricht Reinhart and Rogoff's (2009) Behauptung, dass nach Zeiten wirtschaftlicher Krisen oft anhaltende Arbeitskrisen auftreten. Daher wurde Selbstständigkeit als Karriereweg in vielen Ländern immer wichtiger. Darüber hinaus hat das Unternehmertum auch einen wichtigen Beitrag zum Wirtschaftswachstum und zur Widerstandsfähigkeit geleistet, was durch die Bewegung von einer industriellen zu einer dienstleistungsorientierten Volkswirtschaft ermöglicht wurde.

Die Studien in dieser Dissertation explorieren eine Reihe von psychologischen und Sozialisierungsfaktoren im Prozess des Unternehmertums: die Bildung der Intention, in die Selbstständigkeit zu gehen, den tatsächlichen Eintritt in die Selbstständigkeit, den Erfolg sowie die Absicht, selbständig zu bleiben. Bestehende Forschung behandelt diese Komponenten des Prozesses als separate Themen. Dennoch haben die Erfahrungen auf all diesen Stufen des unternehmerischen Prozesses aus Karriereperspektive (Burton et al., 2016) Implikationen für Verbleiben in oder Ausscheiden aus der Selbstständigkeit. Zwei Muster können aus dieser Dissertation abgeleitet werden. Erstens die Bildung der Intention zur Selbstständigkeit und deren Zusammenhang zum tatsächlichen Eintritt in die Selbstständigkeit. Zweitens der unternehmerische Erfolg und dessen Implikationen für das Festhalten an der Selbstständigkeit als Karriereweg. Ziel dieser Dissertation war es, den Pfad der Selbstständigkeit von der Entwicklung der Intention über den tatsächlichen Eintritt bis hin zu Erfolg und Commitment zu bestimmen. Allerdings ist dies nur in einem sehr großen Zeitraum möglich. Beispielsweise zeigt Literatur, dass die Beziehung zwischen unternehmerischen Absichten und dem Eintritt am besten nach 18 Jahren vorhersagbar ist (Schoon & Duckworth, 2012). Daher konnten die vorliegenden Untersuchungen nicht den gesamten Pfad beobachten. Vielmehr werden persönliche Attribute und Kontexte nahe des Menschen berücksichtigt, die Intention, Eintritt, Erfolg und Commitment im selbstständigen Karriereweg prägen. Im Speziellen untersuchen die Studien die Rolle von psychologischen Attributen, einschließlich Persönlichkeit, kognitiven Stilen, moralischer und kultureller Intelligenz, psychologischem Kapital und unternehmerischen Einstellungen. In Bezug auf die Kontextfaktoren wird besonders auf die unternehmerischen Sozialisationsprozesse eingegangen, was unternehmerisches Mentoring und die Kultur umfasst. Der Faktor Kultur wird sowohl auf persönlicher als auch auf nationaler Ebene betrachtet.

Folglich untersuchen die Manuskripte vier einschlägige Forschungsfragen. Diese Fragen sind entscheidend, um die Rolle der psychologischen und Sozialisierungsfaktoren im Prozess der Selbstständigkeit zu verstehen und um die Selbstständigkeit als Karriereweg und nicht nur als Mittel zur Gründung und Leitung von Unternehmen zu verstehen. Diese Forschungsfragen sind:

1. Wie wirken sich proteische Eigenschaften und die Sozialisationsfaktoren gemeinsam auf die Bereitschaft aus, in die Selbstständigkeit zu gehen?
2. Wie beeinflussen kognitive Attribute und kulturelle Werte die Intention, eine Karriere in der Selbstständigkeit zu machen?
3. Welche psychologischen Attribute erhöhen die Effektivität von unternehmerischem Mentoring bezüglich Intentionen und tatsächlichen Eintritten in die Selbstständigkeit?
4. Welche persönlichen Attribute und Sozialisationsprozesse sind entscheidend für die Realisierung von verschiedenen unternehmerischen Ergebnissen?

Diese Forschungsfragen wurden mit robusten Ergebnissen in neun Manuskripten beantwortet. Die ersten beiden Manuskripte beziehen sich auf die erste Forschungsfrage. Basierend auf der person-fit Perspektive zeigten diese Manuskripte, dass unternehmerische Intention mit vielfältigen Attributen, wie der persönliche Initiative, Flexibilität und Karriereorientierung, assoziiert ist. Dennoch war der Effekt der persönlichen Initiative und der Karriereorientierung nur bei der Studierendenstichprobe bedeutsam, während der Effekt der Flexibilität bei den AbsolventInnen, aber nicht bei den Studierenden beobachtet wurde.

Manuskripte 3 und 4 sind der Beantwortung der zweiten Forschungsfrage gewidmet. Ergebnisse dieser Manuskripte unterstützen die Theory of Planned Behavior (TPB), aber wiesen zusätzlich darauf hin, dass es mögliche Interaktionen zwischen Vorläufern der Intention gibt. Insbesondere wiesen die Ergebnisse darauf hin, dass die Kontrollüberzeugung (locus of control) sich vermittelt durch unternehmerische Einstellungen auf die Intention zur Selbstständigkeit auswirkt. Zugleich waren der direkte und indirekte Effekt durch individualistische normative Überzeugungen moderiert. Zusätzlich offenbarten die Ergebnisse, insbesondere in Manuskript 3, Interaktionseffekte von persönlichen kulturellen und moralischen Werten (Risikovermeidung und moralische Kompetenz) und dem kognitiven Stil auf die Intention zur Selbstständigkeit bei erwerbslosen jungen Menschen. Personen mit adaptivem kognitivem Stil berichteten höhere Selbstständigkeitsabsichten. Diejenigen mit intuitivem Stil berichteten allerdings auch eine hohe Selbstständigkeitsabsicht, wenn die Risikovermeidung gering und die moralische Kompetenz hoch ist.

Die Ergebnisse in den Manuskripten 5 und 6 beantworten die dritte Forschungsfrage. Wieder wurden Interaktionseffekte von unternehmerischer Sozialisation (Mentoring) und persönlichen Attributen (Selbstbestimmtheit/Autonomie und psychologisches Kapital) auf

die Selbstständigkeitsabsichten bestätigt. Ergebnisse einer Langzeitstudie (Manuskript 6) unterstützen zusätzlich die TPB, indem sie zeigten, dass Personen mit höheren unternehmerischen Intentionen eher gewillt waren, nach dem Hochschulabschluss selbstständig zu werden. Allerdings wurden auch interkulturelle Unterschiede beobachtet und im Manuskript diskutiert.

Schließlich sind Befunde zur Forschungsfrage 4 in den Manuskripten 7, 8 und 9 dargestellt, die darauf hinwiesen, dass persönliche Attribute, insbesondere psychologisches Kapital und kulturelle Intelligenz, mit subjektiven und objektiven Outcomes assoziiert sind, inklusive der psychologischen Bedürfnisbefriedigung, dem Sinn des Lebens, der unternehmerischen Arbeitszufriedenheit, unternehmerischer Leistung und Wachstum, sowie mit dem Einkommen. Die Befriedigung des Bedürfnisses nach Autonomie war auch mit anderen subjektiven Faktoren assoziiert. Außerdem hatten die meisten Outcomes, wie psychologisches Kapital, bedeutende Effekte auf das Commitment für eine Karriere in der Selbstständigkeit.

## Introduction

### General Background

The contemporary work environment is highly dynamic. There are particularly different forces that are at play in the labor market, such as globalization, immigration, unemployment, job insecurity, shifts in economic systems, and revolutions in the workplaces such as increased application of industry 4.0. These have a net effect on what kind of jobs are available, how fast people can transit from school-to-work and where people work. In response to these dynamics, we have seen increased focus on career concepts, for example protean and boundary less careers (e.g. Briscoe & Hall, 2006; De Vos & Soens, 2008; Hall, 1996) as well as career self-management (e.g. De Vos & Soens, 2008; Lent & Brown, 2013), that call for new sets of behaviors for people to succeed in the present day complex and turbulent career milieu. The call is particularly for individuals to be self-directed, value driven and malleable in managing their careers, if they are to achieve success (Briscoe & Hall, 2006; De Vos & Soens, 2008; Hall, 2002; Lent & Brown, 2013). Hence, individuals are encouraged to be mobile, to cast their “fishing nets” into the unfamiliar waters, because sticking to one’s trade of comfort or expertise or pursuit of success in organizational careers is not only antiquated but probably inanimate altogether (Hall, 1996).

One of the alternatives to the old-fashioned organizational career is self-employment. Like other careers, self-employment or entrepreneurship involves earning some kind of income or wages, using skills, and could also be considered in terms of career mobility (Burton, Sørensen, & Dobrev, 2016). In the entrepreneurial sense, it is a career path that is increasingly attractive today, not because it provides more stable employment and income; rather it matches the present-day career needs. In the present century, it seems that individual’s careers goals are inspired by pursuit of psychological gratification rather than economic motives (Hall, 2002). Particularly, eudaimonic living (Deci & Ryan, 2008; Ryan et al., 2013) is central to vocational goals and choices. This involves seeking to satisfy needs such as autonomy in the workplace (Otto, Rigotti, & Mohr, 2013) which translates into higher satisfaction and wellbeing. However, such work conditions and outcomes are more likely in self-employment than in wage-employment (Berglund, Sevä, & Strandh, 2015). Moreover, the factors that have shaped the complexity of the labor market also offer opportunities for career success in entrepreneurship and innovation. Particularly, changes in form of industry, globalization, and unemployment. Movement from industry-led to information and service driven economies, present wide range of entrepreneurial

opportunities for people to transform their intelligence, innovative abilities and imaginations into wealth generating activities. Most present-day startups are driven by information technology, which is fast becoming the leading platform for innovation and commerce. Similarly, globalization has opened a wide range of business opportunities beyond national boundaries; which opportunities are ready to be exploited by willing and capable individuals.

The present study is particularly motivated by the current youth unemployment crisis. Following the financial crisis in America and Europe at the end of 2000s, and the population boom in Africa, unemployment rates have swollen to record levels. Global youth unemployment rate is estimated at 13% yet the number of job seekers is expected to increase by thirteen million people by 2019 (International Labour Organisation, 2015). This situation poses social and economic challenges for both developed and developing nations. Specifically, it is a challenge in the process of surging development in developing countries, but also for developed countries that suffered most from the financial crisis. Although most countries have recovered from this crisis, it has been observed that global economic growth is still slower and hence not matching with the rapidly growing labor force. Consequently, it is estimated that about 470 million jobs need to be created for only new job entrants in the next 15 years (United Nations, 2016).

This situation has necessitated sustained debate on tackling youth unemployment, with particular focus on self-employment as most promising strategy. Self-employment is a more viable solution because it does not only provide an employment opportunity to the business owner, but a process through which entrepreneurship is promoted, organizations created and consequently new work places (Wolff & Nivorozhkin, 2012) hence important for job creation (Praag & Versloot, 2008). Therefore, self-employment is a double pronged response to current unemployment crisis. Moreover, enterprises created through self-employment contribute to economic development through creating wealth. Past research have demonstrated that entrepreneurship is essential for economic resilience, growth and development (Kuratko, 2003; Skriabikova, Dohmen, & Kriechel, 2014; Valliere & Peterson, 2009; Williams, Vorley, & Ketikidis, 2013). Self-employment offers opportunity for several people to bring their expertise and innovative ideas to the economic arena, which enables them to achieve their career ambitions as well as an opportunity to make meaningful contributions to society (Kuratko, 2003). The degree to which self-employment contributes to economic and social development may depend on the level of entrepreneurial success achieved. However, research has also suggested that it depends on a country's level of economic development. Accordingly, entrepreneurial activity makes massive contribution in

developed countries (Kuratko, 2003; Valliere & Peterson, 2009). On the other hand, self-employment is now major form of employment in developing countries (Chigunta, 2017; Falco & Haywood, 2016; Gindling & Newhouse, 2014), a contribution that cannot be ignored.

Much has been written about why some people and not others engage in entrepreneurial activities. Different perspectives, particularly in psychological and economic domains, have been used to generate a wide range of answers to this question. Evidence generated suggest that there are individual and contextual factors, from micro to macro levels, that attract or push people into self-employment (Patel & Thatcher, 2014). The major player however seems to be the changes in labor force (Falter, 2005). At present, this could be true for developing countries with predominantly young populations; where all graduates cannot be absorbed by the current job openings. The consequence of such situations is surge in unemployment rates or at least underemployment, which in turn push individuals into self-employment (Abada, Canada, & Lu, 2014; Falco & Haywood, 2016; Grüner, 2006; Oh, 2008). Therefore, many individuals, particularly new entrants in the labor market, may seek a career in self-employment based on limited likelihoods of obtaining the desired job (Gindling & Newhouse, 2014) or the likelihood of never getting a salaried job. Based on these realities, some scholars claim that choice to go into self-employment is more reactive than proactive career decision (Walker & Webster, 2007).

Contrary to this idea that individuals are pushed into self-employment by some vexatious economic or career situations, there is evidence suggesting that some individuals are attracted to entrepreneurial opportunities (Dana, 1996, 1995) even where there are other great employment opportunities; or individuals preferring salaried jobs that enables them to use their entrepreneurial abilities through entrepreneurship. There is also evidence demonstrating that push factors such as unemployment actually have only marginal effects on entry into self-employment (Patel & Thatcher, 2014). Instead, research shows that there are a range of factors that influence individuals' decisions to pursue a career in self-employment, for example, entrepreneurial culture and education, expected earnings and seeking independence at work (e.g. Abada et al., 2014; Goetz & Rupasingha, 2013; Liñán & Fayolle, 2015; Shiri, Shinnar, Mirakzadeh, & Zarafshani, 2017; Wang, Prieto, Hinrichs, & Aguirre Milling, 2012). This is the basis of the present study; that even when economic, social or career situation is complex implying that self-employment is most feasible alternative, only those with entrepreneurial dispositions will actually enter, persist and succeed in self-employment. The reality is that despite the increasingly slim chances of getting a job, and

various efforts in promoting self-employment, there are many young people who continue to wait for an opportunity in paid positions. Based on psychological perspectives, it is assumed that predisposition to become self-employed is developed from entrepreneurial socialization processes as well as psychological attributes. Towards this end, Rugasira (2014) reported that it is estimated that about only four percent of the population are considered entrepreneurs and about sixteen are imitators. Validating this claim, empirical evidence suggest that there are fewer makers or innovators than hackers (Mauroner, 2017). This claim illustrates that some individuals have the capability to become self-employed; others can be supported to develop that capacity, while others may never consider self-employment with or without support.

To answer the question of who becomes an entrepreneur or self-employed, most studies have focused on personality variables such as the big five personality model, the risk attitude, locus of control and need for achievement (e.g. Mount, Barrick, Scullen, & Rounds, 2005; Patel & Thatcher, 2014; Zhao, Seibert, & Lumpkin, 2010). Others have focused on entrepreneurial cognition (e.g. Dutta & Thornhill, 2008; Pihie, Bagheri, & Sani, 2013; Steffens, Fitzsimmons, & Douglas, 2006) and entrepreneurial education (e.g. Fayolle & Gailly, 2015; Garcia, Leles, & Romano, 2017; Karimi, Biemans, & Lans, 2016; Walter & Block, 2016; Zhang, Duysters, & Cloudt, 2014). There are many other aspects that have been studied, as can be seen in Liñán and Fayolle's (2015) review of intentions research. The present study incorporates all these perspectives and investigates how they interact to increase an individual's likelihoods of becoming self-employed. Patel and Thatcher (2014) observed that those entering self-employment must stick in there, if the economic benefits are to be realized. However, persisting may not be enough given that some may persist in self-employment but in a failed state. Hence, the study further focuses on the impact of these factors in determining success, and argues that success motivates persistence. Cross cultural comparisons are also made to establish the influence of culture on entry, persistence and success in self-employment. Therefore, the study is in line with Hisrich, Langan-Fox, and Grant (2007) call for psychological research in entrepreneurship to focus on entrepreneurs' personality traits, entrepreneurial cognition, education and international entrepreneurship. The present study demonstrates that mixing these approaches could contribute to understanding of how different person and context variables work together at different phases of self-employment process.

There is already extensive research linking numerous psychological constructs to entrepreneurship. Therefore, the study builds on extant literature to extend the application of psychological constructs to different phases of the self-employment process. However,

individuals possess several psychological attributes. An attribute refers to any characteristic possessed by an object, including both properties and relations (Maul, 2013). Yet extant entrepreneurship research tends to revolve around similar psychological concepts. In their review of literature on entrepreneurial intentions (Liñán & Fayolle, 2015) for example, about half of the 148 papers reviewed were on psychological variables. However, they note that most of the attention regarded personality factors including the big five factors, risk tolerance, locus of control, innovativeness and narcissism. There also seems to be a fair amount of research on cognition (e.g. Haynie, Shepherd, Mosakowski, & Earley, 2010; Krueger & Kickul, 2011; Mitchell et al., 2002; Mitchell, Smith, Seawright, & Morse, 2000; Pihie et al., 2013) and attitudes (e.g. Fayolle & Gailly, 2015a; Hu, 2014; Robinson, Stimpson, Huefner, & Hunt, 1991; Thoma, Narvaez, Rest, & Derryberry, 1999). These studies present various personality and cognition constructs that affect how people perceive, interpret and react to entrepreneurial opportunities, and how people behave in business contexts. However, there is need to focus beyond these constructs.

Within and beyond these domains of psychological study, there are emerging concepts that are increasingly becoming popular in management studies, for example psychological capital (Goldsmith, Veum, & Darity, 1997; Luthans, Luthans, & Luthans, 2004) and cultural intelligence (Earley & Peterson, 2004; Christopher Earley & Mosakowski, 2004; Christopher Earley, 2002). The application of such constructs to self-employment, is still in the nascent phase and require extension and replication. There are also old psychological constructs that are widely researched in work situations but are lightly applied in entrepreneurial research. For example self-determination concepts are widely applied to motivation and persistence in career situations (e.g. García Calvo, Cervelló, Jiménez, Iglesias, & Moreno Murcia, 2010; Otto, Roe, Sobiraj, Baluku, & Garrido Vásquez, 2017; Vallerand, Fortier, & Guay, 1997), only few studies have extended this construct to study persistence in self-employment (e.g. Patel & Thatcher, 2014). Even for those concepts such as personality that are widely applied, there is still a need to go beyond the scope of the big five, locus of control and risk tolerance. Therefore, the present study particularly focuses on Protean attributes such as flexibility, personal initiative, competition orientation. Moreover, the differential role of psychological constructs at the different stages of the self-employment process requires more attention. For example, intention-behavior link is a major gap in self-employment literature (Fayolle & Liñán, 2014; Nabi, Liñán, Fayolle, Krueger, & Walmsley, 2017), yet psychological research could offer important explanations to this process.

The study further focuses on the role of entrepreneurial socialization in the self-employment process. Entrepreneurial socialization, which includes education, training and culture has the potential of increasing entrepreneurial intentions and entry (Adamonienė & Astromskienė, 2015; Honig, 2004; Licht, 2010; Pretorius, Nieman, & van Vuuren, 2005; Starr & Fondas, 1992) as well as success (Dickson, Solomon, & Weaver, 2008). The aspects of education and training are in the present study summed in the construct of entrepreneurial mentoring. Generally, mentoring involves an experienced individual supporting the professional development of a protégé through information, guidance and counseling (Kram & Isabella, 1985). Hence, mentoring goes beyond development of work-related hard skills. In the entrepreneurship field, it is suggested that mentoring should focus on strengthening cognitive and affective skills that improve opportunity recognition, efficacy and developing one's entrepreneurial identity or self-image (St-Jean & Audet, 2012). Concerning the cultural aspect of entrepreneurial socialization, it has been observed that cultural mindsets can block business opportunities (Funakawa, 1997). Cultural values and practices can support or hinder entrepreneurial development through its effects on perceptions of opportunities, barriers and risk as well as perception of one's ability to succeed in business (Migliore, 2011; Shinnar, Giacomini, & Janssen, 2012). At the extreme end of hindering entrepreneurial engagement, cultural norms in some communities dictate the nature of business and medium of transacting (e.g. Dana, 1997). On the other hand, culturally acquired values such as thrift, asceticism, and frugality facilitate development of entrepreneurial behavior (Dana, 1996).

The studies presented in this dissertation focus beyond what constitutes an entrepreneurial culture, but rather aspects that facilitate entry, persistence and success in self-employment in different cultures that have been labeled entrepreneurial or non-entrepreneurial. The study is also unique in focusing on the role of culture at both national level using Hofstede dimensions (Hofstede, 1984; Hofstede, Hofstede, & Minkov, 2010) and personal cultural orientations (Sharma, 2010). The study further examines the hybrid effects of socialization and psychological factors on the self-employment process; highlighting how these factors work together to strengthen self-employment intentions, likelihoods of entry, success and persistence.

### **Contextual Background**

Walker and Webster's (2007) claim that the decision for a career in self-employment is rather reactive than proactive is to some extent valid in the context of the present study. The study was conducted in two regions (Germany and East Africa) with distinct contexts but

posing similar challenges relating to chances of success in the labor market. The specific challenges include unemployment or job security and slowed economic development, to which self-employment is considered a feasible reactive or proactive solution. Germany is part of the greater Europe that suffered grossly from the economic and financial crisis of the late 2000s. As a consequence, the gross domestic product of several developed countries dwindled significantly (Choudhry, Marelli, & Signorelli, 2012), given that companies had restricted financial capacities to exploit attractive investment opportunities (Campello, Graham, & Harvey, 2010), as many firms with limited access to credit tended to choose between precautionary saving and investment (Campello, Giambona, Graham, & Harvey, 2011; Duchin, Ozbas, & Sensoy, 2010). Consequently, the financial crisis had enormous effects not only on job creation but also sustaining the existing ones resulting into heightened job insecurity and unemployment (Otto et al., 2013; Choudhry et al., 2012). Moreover, the youths were the most affected (Choudhry et al., 2012; Verick, 2009).

Like many economies that largely dependent on exports of large corporations, Germany is one of the countries that were grossly affected by the financial crisis (Storm & Naastepad, 2015). On the other hand, the country is among the few that remained resilient in the labor market; with almost unchanged unemployment rates (Daly, Fernald, Jorda, & Nechio, 2014). Moreover, Germany emerged from the crisis fast and stronger (Storm & Naastepad, 2015). However, there are still challenges that still require attentions. Particularly, one of the long-term negative impacts of financial crises is job insecurity (Chung & van Oorschot, 2011; Toren, Brisman, & Jarvholm, 1993). Moreover, with old challenges such as globalization and deregulation of markets, job insecurity seems to be increasing in Europe (László et al., 2010), with many individuals particularly concerned about fear of losing employment (Gallie, Felstead, Green, & Hande, 2016). The situation is further worsened by the immigration challenge, particularly the present refugee crisis (Hainmueller, Hangartner, & Lawrence, 2016) with refugees experiencing challenges in getting hired and losing jobs more frequently (Dumont, Liebig, & Peschner, 2016; Hainmueller et al., 2016; Lundborg, 2013). These are challenges that can be addressed through self-employment. In this direction, it has been reported that Germany had tremendous progress in self-employment attributed the specific policies promoting catch up process for Eastern Germany after reunification, integration of immigrants into the productive labor force and movement towards service sector (Baumgartner & Caliendo, 2008; Fritsch & Rusakova, 2012; Kontos, 2003). The social and economic system changes also present opportunities for self-employment in Germany. Estimates indicate that there was a 40% increase in self-

employment between 1991 and 2009, attributed to change towards service sector as well as willingness of the unmarried, the highly skilled and foreigners to enter into self-employment (Fritsch, et al. 2012). Therefore, whereas unemployment rates in Germany are relatively low, there are several economic and social challenges that could push people into self-employment or that at least provide avenues for individuals to seek careers in self-employment.

The contextual push factors for self-employment in East Africa are somehow different from that of Germany. At first glance, the most recognizable challenge relates to level of development. Implying economic activity is low, thus fewer job openings. The second challenge relates to population boom, consequently a huge number of young people entering the labor market. All countries in this region are classified as low-income economies (World Bank, 2017). Generally, Africa has a rapidly growing population (cf: Gerland, Raftery, Ševčíková, Li, & Gu, 2014; United Nations, Department of Economic and Social Affairs, Population Division, 2017), with people below age of 35 years forming the majority of the region's population (see: Wilkinson et al., 2017). The World Population Prospects reports indicates that more than half of the world's population growth in the next three decades is expected to occur in Africa (United Nations, Department of Economic and Social Affairs, Population Division, 2017). Although population growth might be good for the development of human resources and markets required for economic development, it also poses stern constraints on the labor market particularly on less developed countries. Therefore, job markets are overcrowded that only few of the individuals in the market can be absorbed in the existing job opportunities (Falco & Haywood, 2016). For example, there are approximately 700,000 new entrants in the job market every year in Uganda; yet the net job creation is estimated to absorb 10% of them (UNDP-Uganda, 2013).

Consequently, self-employment seems to be the most available job opening and feasible route for new graduates to negotiate their transition from school to work. This could account for the entrepreneurial potential in the East African region (Singer, Amorós, & Moska, 2015), with Uganda specifically ranked among the world's most enterprising countries (Balunywa et al., 2013). This contextual description is congruent with Gindling and Newhouse (2014) finding that self-employment is the leading form of employment in low income countries with 70% of the total employed population being own-account or non-paid workers, as compared to only 10% in developed countries. Overall, like the case for Germany, the economic and demographic context of East Africa present challenges that could force individuals into self-employment. However, they also present opportunities that those with high entrepreneurial mentality would seek to utilize through self-employment.

Moreover, not everyone affected by these advance conditions goes into self-employment despite a plethora of interventions promoting entrepreneurship activities (Semboja, 2007).

Therefore, the question “who becomes an entrepreneur or self-employed” (Levine & Rubinstein, 2017; Poschke, 2013; Walter & Heinrichs, 2015) is one that has been asked severally. In over 30 years of research, important answers have been generated, but not yet fully answered. Particularly with a call to integrate explanatory perspectives, how personal and contextual influences affect entrepreneurship entry across contexts and over time; and also a call for integration of emerging contextual and conceptual issues (Fayolle & Liñán, 2014; Liñán & Fayolle, 2015; Walter & Heinrichs, 2015). However, in career and economic perspectives, answering this question is the starting point. Further questions such as how do the self-employed succeed (e.g. Baluku, Kikooma, & Kibanja, 2016a, 2016b; Chattopadhyay & Ghosh, 2002; Levine & Rubinstein, 2017) and what is necessary for them to persist in their roles (Patel & Thatcher, 2014) are critical, especially in these contexts of growing unemployment and job insecurity.

### **Challenges and Research Questions**

Tropical Africa’s population is predominantly young and continues to grow faster than elsewhere in the world (United Nations Department of Economic and Social Affairs Population Division, 2017). Whereas this is positive in terms of a productive workforce for massive economic growth, it is on the other hand a daunting challenge. Breakneck population growth is purportedly a limitation to growth of public and private investments, consequently increasing unemployment and poverty (Asongu, 2013). Yet governments can only create job opportunities for its skilled and unskilled people through capital investments and creating conducive conditions for private investments.

Away from the African population dilemma, unemployment and job insecurity are presently global challenges, including western countries (Boot, Wilson, & Wolff, 2016; Malinvaud & Fitoussi, 2016). Accordingly, the present generation is labelled a “jobless generation” given that about half of the young people today are either unemployed or working poor (Vogel, 2015; Vogel, 2015). This challenge particularly excludes the youth from being engaged in productive work, which has long term negative implications for economic growth and development. It especially sustains big number of young people in poverty. Extant literature shows that unemployment negatively impacts on economic development and resilience (Davidescu & Dobre, 2013). Economies do not merely lose

financially in terms of tax and unemployment benefits, but also miss out on the skills of the unemployed persons. There are additional social and mental health challenges that result from joblessness (Strandh, Winefield, Nilsson, & Hammarström, 2014; Thern, de Munter, Hemmingsson, & Rasmussen, 2017). Some unemployed young people tend to experience feelings of marginalization and frustration, consequently leading them into crime and drug abuse (Glanville, 2005; Morris, 2002). Similarly, unemployment has been found to relate to depression and at the extreme can lead to suicide (Glanville, 2005; Milner, Page, & LaMontagne, 2014; Norström & Grönqvist, 2015). Importantly, in line with the argument of the present study, unemployment also disrupts career progression of the affected individuals.

To tackle this challenge, it has been proposed that governments keep tackling unemployment as a top policy priority (Boot et al., 2016). This is in line with calls for increasing entrepreneurship opportunities, given that it has potential of turning job seekers into job creators (Falco & Haywood, 2016; Fritsch & Wyrwich, 2014; Vogel, 2015; Wolff & Nivorozhkin, 2012). In response, governments have geared enormous efforts to promoting self-employment through seed financing and entrepreneurship education programs. Yet the majority of youths remain unemployed and majority are stuck to competing for the few opportunities in paid positions

Self-employment promotion interventions in many countries by far focus on startup financing and training in business skills. While these interventions are yielding amazing results in increasing number of people entering self-employment particularly in developing countries (e.g. Blattman, Fiala, & Martinez, 2014; Lourenço et al., 2014; Oyugi, 2014), they have hardly addressed the problem of exit and failure on the other hand. The high proportions of exit and failure tend to justify the claim that whereas many are called into self-employment, very few have the ability to succeed in it (Aldrich & Martinez, 2001; Rugasira, 2014). Evidence suggests that of those who enter into self-employment, only very few succeed. In developing countries, only about seven percent of the self-employment are considered successful (Gindling & Newhouse, 2014). The challenge arising from high failure and exit rates is that the intended impact of self-employment on unemployment and economic development are likely to also remain elusive, particularly in developing countries. Therefore, whereas mass movement towards self-employment is desirable for both economy and individuals, the ability to persist and succeed in self-employment may be more valuable.

An important observation is made by Gindling and Newhouse (2013), in their survey of self-employed in 74 countries, that approximately a third of unsuccessful entrepreneurs share similar characteristics and hence advocate for support of entrepreneurs with growth

potential. In this regard, it has been claimed that very few have innovative potential, but their innovations can help a few others to become entrepreneurs too through copying or hacking or following the innovators (Mauroner, 2017; Rugasira, 2014). These observations support indicate that personal attributes, especially psychological characteristics, have implications for types of entrepreneurial activities in which individuals can persist and/ or succeed (Navis & Ozbek, 2016). It is on this basis that the current study focuses on role of individual's psychological attributes as well as mentoring in entry and succeeding in self-employment. Concerning the psychological aspects, the self-employed are required to adopt an entrepreneurial cognition and character that enhances ability to take decisions in ambiguous situations, taking risks, innovativeness, understanding market dynamics, goal achievement focused , and business management capacity (Haynie et al., 2010; Littunen, 2000; Miner, 2000; Mitchell et al., 2007). The state and posture of mind influence decisions and behavior which consequently affect the experiences of self-employed persons. The study will validate the role of specific psychological attributes in self-employment, and hence suggestions for cognitive and behavioral trainings of youths engaged or prospecting to engage in entrepreneurship.

One of the approaches to developing positive attitudes and behaviors necessary for entry and succeeding in self-employment is socialization through exposure to role models and mentors. This is expressed in studies showing that perceptions of career-related mentoring and psychological support are associated with business outcomes (e.g. Waters, McCabe, Kiellerup, & Kiellerup, 2002). Effective mentoring arouses mentees positive attitude and behavior (Laviolette, Lefebvre, & Brunel, 2012). Unfortunately, there are not plenty of successful self-employed individuals or family businesses in the East African Community that can provide quality mentoring and role modeling for youths. However, it is also not known whether success in self-employment in German can be linked to existence of successful role models and skilled mentors. Nonetheless, within the entrepreneurial socialization research, some studies have suggested that certain cultures are conducive for entrepreneurship therefore could explain variances in self-employment between countries or regions (Baughn & Neupert, 2003; García-Cabrera & García-Soto, 2008; Hopp & Stephan, 2012; Swierczek & Quang, 2004).

Some of the challenges described above would suggest that people are actually driven into self-employment by the circumstances. However, it is also argued that some individuals freely choose for a career in self-employment. These two propositions are similar to a philosophical debate on whether the will is free from being caused. In the context of this

study, the question is whether people can truly freely choose a career path in self-employment when given other attractive career alternatives? Or is it always that it's the complexities in the labor market relating to finding and keeping a job? Towards answering the question of free will versus forced choice, Monroe, Dillon, and Malle (2014) found that judgment of free will is strongly predicted by psychological capacities including intentionality, choice and being the sole cause of one's action; and not the ascriptions of the soul. Therefore, whereas some individuals can claim to have freely chosen a career in self-employment, this free choice is subjective to the appraising of circumstances, as well as personal factors that make self-employment attractive. Hence, both are possible that individuals can be pushed into entrepreneurship resulting into necessity entrepreneurs; while others are attracted by entrepreneurship opportunities resulting into opportunity entrepreneurs (Burton, Sørensen, & Dobrev, 2016; Gimeno, Folta, Cooper, & Woo, 1997; Hartog, Van Praag, & Van Der Sluis, 2010). Another classification groups these forms into reactionary self-employment – pushed by circumstances; passive self-employment – pushed by significant others; and innate, active self-employment – pushed by internal drive or attracted to opportunity (Dana, 1996).

Grounded on psychological and socialization perspectives, the study examines the contribution of a wide range of psychological attributes and socialization mechanisms that are associated with young people's self-employment intention, entry, persistence and success. To achieve this goal, and to provide answers to some of the challenges described above, the study consists of nine manuscripts addressing four pertinent research questions. These questions are not only central to the understanding of the role of psychological and socialization factors in the self-employment process, but also understanding of self-employment as a career path, rather than just a means of establishing and managing businesses. The research questions are:

1. How do Protean attributes and socialization factors work together to influence readiness to go into business?
2. How does one's cognitive attributes and cultural values affect intentions to make a career in self-employment?
3. What psychological attributes are necessary for the effectiveness of entrepreneurial mentoring in leading to higher self-employment intentions and entry?
4. What personal attributes and socialization factors are critical for the realization of different entrepreneurial outcomes?

## **Theoretical Framework**

### **Entrepreneurship or Self-employment**

Popular literature does not distinguish between self-employment and entrepreneurship. To a lay person, they all seem to be concepts denoting engaging in business. Indeed, there exists conceptual overlap between the two constructs, hence some researchers treated them as synonymous (Startienė, Remeikienė, & Dumčiuvienė, 2010). For example, in some research self-employment is operationalized with entrepreneurship variables (e.g. Douglas & Shepherd, 2002). This is because defining self-employment and differentiating it from entrepreneurship is rather contentious. Self-employment includes own account workers and working proprietors of unincorporated enterprises (House, Ikiara, & McCormick, 1993; Parker, 2004). However, this definition excludes own workers of incorporated businesses. To resolve this dilemma, Parker (2004:6) suggests classifying self-employed into “employers and own-account workers” or “owners of incorporated and unincorporated businesses”. The challenge is sometimes owners of incorporated businesses are regarded as employees, especially if they have a contract of service (Parker, 2004). Parker contents that owners of incorporated businesses but have contract of service are paid employees and not self-employed.

Self-employment and entrepreneurship also tend to differ in the sense of Weberian distinction between enterprise- and household-centered businesses (Rona-Tas & Sagi, 2005). Whereas self-employment tends involve engaging in business aimed at increasing household income, entrepreneurship is focused on creating new enterprises that should be long-lasting. Thus a self-employed person could be considered a business owner, who could either work alone or employ other people. On the other hand, an entrepreneur is an innovator who brings something new to the market. This could be starting a new company or bring new innovations within an existing company (Antoncic & Hisrich, 2001, 2003). Further clarification along income and innovation aspects is provided by Patel and Thatcher (2014). They note that both self-employed and entrepreneurs derive residual income but entrepreneurs are specifically involved in innovative processes; and that all entrepreneurs are self-employed while the reverse is not true (Patel & Thatcher, 2014; Startienė et al., 2010). Based on this explanation, the study focuses on self-employment, including those who are self-employed for entrepreneurial motives, and also based on the assumption that succeeding in self-employment requires entrepreneurial capabilities. It is also consistent to the idea of

organization creation, which is a major theme in the definition of entrepreneurship (Robinson et al., 1991).

Earlier literature suggested that all own account workers including beggars and thieves were entrepreneurs since they face risk of economic uncertainty (Dana, 1996). However, most recent literature emphasizes innovations and opportunity seeking. As a career path, the term entrepreneurs has been applied to also refer to individuals who are self-employed or business owners (Gorgievski & Stephan, 2016; Praag & Versloot, 2008). These include different categories of self-employed. For example there are traditional self-employed, who take no or less risk or innovation; there are “Schumpeterian innovators whose major characteristic is innovation; there are social change agents who engage in social entrepreneurship; reactive self-employment who go into entrepreneurial activities because of negative economic situations; and opportunity seekers (cultural and personality determined) who are driven by personal and culturally acquired values (Dana, 1995, 1996). All these are considered in the study as both entrepreneurs, and self-employed at the same time. Moreover, all these categories of self-employed tend to involve internal drive leading individuals to actively seek self-employment (Dana, 1996). Therefore, some papers in this dissertation use the concept “entrepreneurship” while others use “self-employment”. This approach is not uncommon in entrepreneurship literature.

### **The Self-employment Process**

It is widely held that the entrepreneurial process revolves around founding a new business venture (Reynolds, Carter, Gartner, & Greene, 2004). However, the process does not begin and end with the establishment of the new business. Before the establishment phase, owners identify business opportunities and take decisions to exploit them, yet after establishment, owners or managers of the new venture must also work towards attainment of goals of the venture. Towards explaining the expansiveness of the entrepreneurial process, DeTienne (2010) argued that the process includes entrepreneurial exit, contending that how entrepreneurs leave the organizations they created or helped to create is part of the entrepreneurial process since it has implications for the future of the firm. The stages and tasks involved in self-employment are well demonstrated in the entrepreneurship conceptualization model (Reynolds et al., 2004). The stages described in this model are comparable to the elements of the theory of planned behavior - TPB (Ajzen, 1991) which involves movement from belief systems to development of intentions, which in turn results

into action. Reynolds, et al (2004) propose that the entrepreneurial process begins with individuals from the general adult population and from existing firms deciding to go into business which results into nascent independent and nascent corporate entrepreneurs respectively. This constitutes the conception stage, in which individuals are taking stock of possibilities to start a business. These are similar to the belief system, which results into attitude and intentions in the TPB.

The conception or intentions stage results into the startup process, which is similar to intention implementation in the TPB. The result of startup is a new organization in its infancy stage, and its owners or managers have the task to persist and grow the business, otherwise quitting is a possible alternative. However, this process is affected by social, political and economic context factors (Reynolds et al., 2004). It is also proposed that the start of the entrepreneurial process may be determined by one's life context, personal background and cognitive characteristics, while each stage of the entrepreneurial process may be influenced by the entrepreneurial environment (Gartner, 2004). Based on the process described above, this dissertation focuses on the self-employment process (see Figure 1 below) which begins with self-employment intentions, motivated by personal factors (particularly psychological attributes) and entrepreneurial socialization experiences. Those with strong intentions are likely to implement their intentions by starting a new firm or taking up an existing one. The outcomes of the firm may consequently determine whether the individual quits or commits to remain self-employed. Therefore, the study excludes intrapreneurs.

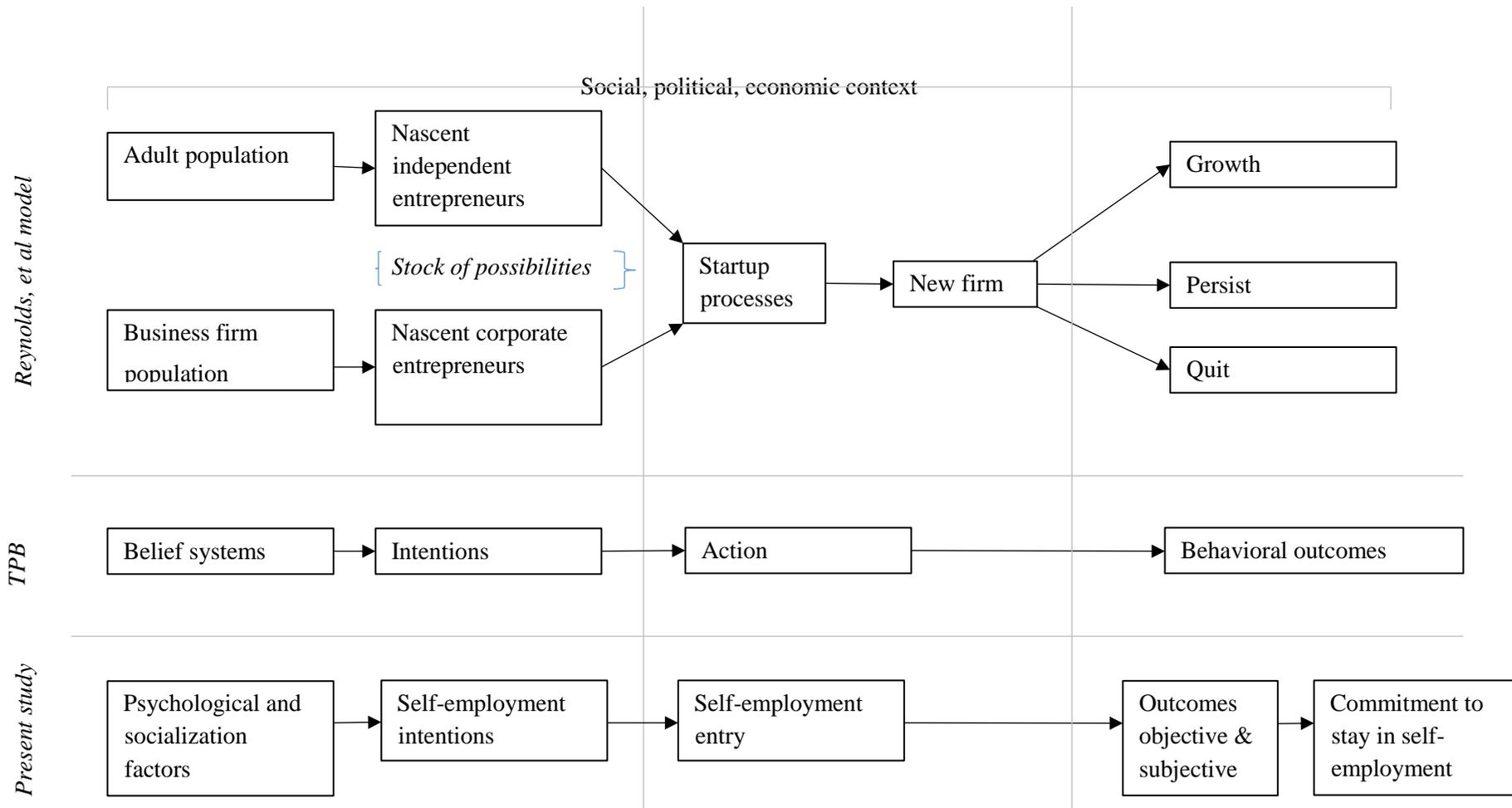


Figure 1. Model of self-employment process derived from Reynolds, et al (2004) conceptualization of entrepreneurial process and Ajzen (1991) theory of planned behavior.

### **Psychological Influences on Self-employment Process**

To examine the role of psychological attributes in the self-employment process, the study is mainly grounded on psychological theories and literature that has viewed self-employment as a career choice that individuals make. However, like it is the case for many career decisions, both psychological and environmental factors play an important role. Even when the environment offers notably unambiguous lucrative prospects, the individual and his or her interaction with the environment is important in the entrepreneurial process (Shook, Priem, & McGee, 2003). It is for this reason that the study focuses on role of psychological attributes and socialization in the different phases of the self-employment process. Specific attention is paid to personality, cognitive and behavioral attributes.

### ***Personality Attributes***

Person-environment fit theories provide basis for studying career choices. Particularly, the theory of vocational personalities and work environments (Holland, 1997) has been among the core foundations of career research and practice. The theory categorizes the nature and level of work people perform in six vocational personalities: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (RIASEC) (Holland, 1997). Each of these personalities represents a set of interests, preferred activities, beliefs, abilities, values and characteristics (Nauta, 2010). The theory proposes that congruence between personality and work environment results into satisfaction (Holland, 1997), hence relevant explanation of why people quit or stick in their jobs/ career paths. In the description of the RIASEC, it is the enterprising personality that is most relevant for the study of self-employment. This personality type is associated with managerial, sales, promotion, business executive, buyer and leadership jobs. Enterprising individuals have also been characterized as adventurous, acquisitive, ambitious, energetic, optimistic, confident and sociable (Spokane & Cruza-Guet, 2005), which qualities may be important at different phases of the self-employment process. The idea that there exists an entrepreneurial personality has been confirmed by numerous studies demonstrating that entrepreneurs tend to possess specific personality traits (Antoncic, Bratkovic Kregar, Singh, & Denoble, 2015; Brandstätter, 2011; Leutner, Ahmetoglu, Akhtar, & Chamorro-Premuzic, 2014; Obschonka & Stuetzer, 2017; Sesen, 2013; Solomon, Frese, Friedrich, & Glaub, 2013). The continued research focus on personality in entrepreneurship research demonstrates its importance to understanding entrepreneurial/ self-employment process.

However, the study of entrepreneurial personality has been dominated by focus on the big five. A recent review of entrepreneurial personality research (Obschonka & Stuetzer, 2017) shows that entrepreneurship is mostly found to associate positively with extraversion, conscientiousness, and openness but negatively with agreeableness and neuroticism. Beyond the big five, research has also demonstrated the value of risk taking ability, need for achievement and control beliefs to entrepreneurship (Obschonka & Stuetzer, 2017). Rauch and Frese (2007) argue that these less stable traits are closer to entrepreneurial behavior; thus more essential for understanding entrepreneurs and the entrepreneurial process. Given that they are easier to change than the stable traits makes them more important for the development of entrepreneurial mindsets (Obschonka & Stuetzer, 2017). Moreover, successful entrepreneurship requires adaptability of mindsets (Haynie, Shepherd, & Patzelt, 2012; Haynie et al., 2010). In addition to these traits posited as more proximal to entrepreneurial activity, psychological capital, described as state-like and trait-like (Luthans & Youssef-Morgan, 2017) is also emerging as an important construct in organizational as well as business behavior research. This construct further highlights the role of specific adaptable traits such as efficacy or control beliefs. Based on this literature, the present study particularly focuses on the role of locus of control and psychological capital at the different phases of the self-employment process. Existing research particularly shows that entrepreneurs tend to have higher locus of control (Verheul, Thurik, Grilo, & Van der Zwan, 2012). Locus of control is especially linked to self-employment entry and exit decisions (Caliendo, Fossen, & Kritikos, 2014; Hansemark, 2003). Manuscript #4 particularly discusses the impact of locus of control to self-employment intentions.

The study further focuses on more personality traits including flexibility, proactivity and competition orientation that could also be proximal to entrepreneurial behavior. Based on person-fit approaches such as the RAISEC (Holland, 1997), competition orientation is examined in Manuscript #2 as a trait that fits the entrepreneurial role and therefore likely to be critical in selection of self-employment as a career path. Competition orientation particularly represents the winning mentality (Schwarz, Wdowiak, Almer-Jarz, & Breiteneker, 2009) which is important in the competitive business environment. Competition orientation is also linked to self-efficacy, which has been found to affect entrepreneurial intention and behavior by research grounded on planned behavior theory (e.g. Chen, Greene, & Crick, 1998; Kautonen, van Gelderen, & Tornikoski, 2013; Tsai, Chang, & Peng, 2016). Manuscript #1 examines the role of flexibility traits and proactivity in development of entrepreneurial intention. In this study, these terms are posited to constitute

the “protean personality”. In the present dynamic career context, where careers are more protean, boundary-less and no longer following a linear direction (Arnold, 2001; Arthur, 2005; Baruch, 2004; Hall, 1996), protean-like abilities are required for career success. Importantly, individuals are called to self-determinedly take charge of their careers and to be adaptive and dynamic if they are to succeed in the present day turbulent labor market and complex career environment (Lent & Brown, 2013; Lent, Ezeofor, Morrison, Penn, & Ireland, 2016; Savickas et al., 2009). Therefore, the study of personality is extended to traits that seem to enable individuals demonstrate protean behaviors. In the context of unemployment and job insecurity, self-employment is among the opportunities through which individuals can self-determinedly take control of their career success. This implies that individuals no longer have to stick to their learned trades or to their specific specializations, hence requiring an individual to be flexible in career decisions but also proactive to recognizing and exploiting opportunities. These two traits are considered important to managing one’s own career progression and success (De Vos & Soens, 2008b; Lent & Brown, 2013; Seibert, Kraimer, & Crant, 2001). Moreover, these are also linked to entry as well as ability to succeed in entrepreneurial activities (Haynie et al., 2012, 2010; Tolentino, Sedoglavich, Lu, Garcia, & Restubog, 2014; Zampetakis, 2008).

### *Cognitive and Behavioral Attributes*

The most popular perspective in the study of entrepreneurial intentions and entry is the theory of planned behavior (Ajzen, 1985, 1991). The theory proposes that human action is a function of three beliefs: an individual’s beliefs about the likely outcomes or behavioral beliefs; normative expectations of other people, also called normative beliefs; and beliefs about factors that may affect performance of the behavior also called the control beliefs (Ajzen, 1985, 1991, 2002). These beliefs result into attitudes towards the behavior, subjective norm and perceived behavioral control respectively (Ajzen, 2002). In turn, these combine to influence development of behavioral intention, which further results into actual behavior. Although intention implementation into actual behavior is further affected by perceived amount of control an individual has over the intended behavior (Ajzen, 2002).

Like many human actions, it is argued that most of entrepreneurial behaviors are planned (Krueger, et al., 2000). Therefore, individuals take deliberate efforts to plan their entry and exit or persistence in self-employment. Concerning entrepreneurial intention, previous research has found that behavioral attitude, subjective norm and perceived

behavioral control account for about 30 – 59% of the variances (Gelderen et al., 2008; Kautonen, van Gelderen, & Fink, 2015; Liñán & Chen, 2009). However, earlier evidence suggested that attitudes and perceived behavioral control explain most of variance in entrepreneurial intention while social norms are likely to have the least effect (cf. Krueger & Carsrud, 1993). The present study particularly emphasizes the role of attitudes, primarily in Manuscripts #1, #4, and #7. However, perceived behavioral control is partly explained by self-efficacy (Ajzen, 2002) which is part of psychological capital as well (Luthans, Avolio, Avey, & Norman, 2007b; Luthans et al., 2004; Luthans & Youssef-Morgan, 2017). This construct is widely investigated in the present study in Manuscripts #6 and #8. Control beliefs are further examined in Manuscript #4. Normative beliefs are widely reflected in cultural orientations, which are also examined in most of the manuscripts. Given the strong focus on attitudes in the study, the following paragraphs explain further the concept of entrepreneurial attitudes.

*Entrepreneurial Attitudes:* The three components of attitudes; cognition, emotion and behavior are certainly important in understanding motivations for people's choices or actions and therefore can in some way predict behavioral outcomes. This is not only true for organizational behavior but also entrepreneurial interests and behaviors (Dreisler, Blenker, & Nielsen, 2003; Harris & Gibson, 2008). It is also suggested that attitudes could be superior in explaining entrepreneurship behavior than personality or demographic variables (Robinson et al., 1991). Notably, positive entrepreneurial attitudes are necessary for individuals to consider a career in self-employment (e.g. Douglas & Shepherd, 2002; Harris & Gibson, 2008; Hu, 2014; Kolvereid & Isaksen, 2006; Nisbet & Thomas, 2000). An individual's utility evaluation or outcome expectations, which determine interest or disinterest, are related to attitudes towards different aspects of entrepreneurship such as risk, wealth or income, independence, and entry requirements. Positive attitudes are likely to lead to higher utility expectations, and thus the individual's intention to go into self-employment. Hence attitude is important for predicting immediate or future interest in entrepreneurial career (Jones et al., 2011). However, attitudes vary, and their effects too may vary according to region, gender, cultures, social and economic systems, as well as experience and/ or training in business (e.g. Byabashaija & Katono, 2011; Harris, Gibson, Barber Iii, Wang, & Orazov, 2011; Henderson & Robertson, 2000; Loveridge, Miller, Komarek, & Satimanon, 2012; Strobl, Kronenberg, & Peters, 2012). Research has focused on specific forms of attitudes such as risk, autonomy, work effort, change, money, competition, and attitudes towards entry requirements (Douglas & Shepherd, 2002; Falck & Woessmann, 2013; Legohérel, Callot, Gallopel, & Peters, 2004;

Schwarz et al., 2009; van Gelderen, 2010; Willebrands, Lammers, & Hartog, 2012). However, studies using the planned behavior theory, or using the entrepreneurial attitude approach, tend to focus on general entrepreneurial attitude (e.g. Bosma & Schutjens, 2011; Misra & Mishra, 2016; Robinson et al., 1991; Schwarz et al., 2009). The present study uses both approaches. Manuscript #1 particularly explains the association of career orientation attitude with entrepreneurial intention, while Manuscripts #4 and #7 explain the association of general entrepreneurial attitude with entrepreneurial intentions and entry.

Application of the theory of planned behavior to entrepreneurial research has also resulted into several extensions. For example, (Gelderen et al., 2008) extended the concept of perceived behavioral control in entrepreneurship to include entrepreneurial alertness and importance individuals attach to financial security. These were found to be essential for development of entrepreneurial intentions. In addition, it has been proposed that there are exogenous factors, which are both personal and situational, that affect entrepreneurial intention and behavior directly or indirectly via attitudes (Krueger & Carsrud, 1993; Krueger, et al., 2000). In the present study, four attributes, which could rather be categorized as intellectual abilities (cultural intelligence, moral potency, and cognitive styles) and psychological capital are considered.

#### *Cognitive Abilities*

Self-employment is a complex job. It involves working in intricate unpredictable situations yet the self-employed have to continuously take important decisions in those situations (Baron, 2000; Baron et al., 2016). Taking a decision to start one's own business, undertaking the stressful startup process and coping with the everyday dynamics of venture operation requires vigorous deployment of one's cognitive abilities. This suggests that entrepreneurs require a high level of mental capability to think abstractly, plan, solve problems, understand complex ideas and situations, and to learn from experiences as quickly as possible. Hence, cognition is essential to understanding entrepreneurs and the entrepreneurial process (Krueger, 2003). Particularly entrepreneurs seem to have special abilities relating to opportunity recognition, designing, analysis of information and situations, risk management, resilience, leadership and effectuation (Boyatzis, 2011; Boyatzis & Ratti, 2009; Duening, 2010). Consequently, various cognitive abilities have specific value to entrepreneurship (Hartog, Van Praag, & Van Der Sluis, 2010) at different stages of the entrepreneurial process. The study particularly investigates the role of cultural intelligence, moral potency (sometimes referred to in this study as moral intelligence) and cognitive style in the intention and success phases of the self-employment process.

*Cultural Intelligence*: Self-employed individuals operate in social settings. In any social context, culture plays an important role in intrapersonal and interpersonal interactions by way of norms, values and practices. However, it is more important to move a step higher than merely focusing on such constitutes of culture. Earley and Peterson (2004) call for a focus on individual's cultural intelligence. This form of intelligence has been defined as the individual's natural ability to adopt to and function effectively in cross-cultural settings (Crowne, 2008; Earley & Mosakowski, 2004; Earley, 2002). Individuals should be able to transfer social skills to different cultural environments through respecting, recognizing, interpreting, reconciliation and adapting to other cultures (Brislin, Worthley, & Macnab, 2006; Earley & Mosakowski, 2004). Cultural intelligence comprises four aspects: control over cognitions (meta-cognition), knowledge of the structures of cultures (cognition), interest to learn and function in cross-cultural settings (motivation), and exhibition of appropriate behavior in cross-cultural situations (behavior) (Ang et al., 2007; Van Dyne et al., 2012).

A basic step to understanding and appreciating intelligence is the view that the meaning of intelligence is culture bound (Sternberg & Grigorenko, 2006; 2006). What is called intelligent in one culture may not be intelligent in another; and therefore it is an authentic intelligence concept that is relevant in a wide range of cross-cultural situations. With regard to specific aspects of self-employment or entrepreneurship, cultural intelligence is important at different stages of an entrepreneurial activity. It might be what is required to identify opportunities (for example opportunities relating to cultural business); and has been found related to entrepreneurial intentions (Jiang & Park, 2012) particularly to engage in cross-national or cross-cultural business. This is reflected in the link between cultural intelligence and commitment to study international business (Ramsey, Barakat, & Aad, 2014) and export performance of small business owners (Charoensukmongkol, 2016). Cultural intelligence is also an important competency for decision making, effective teamwork, leadership, management and negotiations as well as gaining and maintaining competitive advantage (Groves & Feyerherm, 2011; Groves, Feyerherm, & Gu, 2015). All these are essential in the different phases of self-employment process. Moreover, cultural intelligence has been found related to emotional intelligence (Crowne, 2013; Earley & Mosakowski, 2004), thus making substantial contribution to building a business' social and relational capitals.

The study of cultural intelligence in work psychology has been confined to cross cultural business and work contexts. However, even domestic businesses require owners to be culturally intelligent (de la Garza Carranza & Egri, 2010) given the enmeshed

geographical boundaries and reduced homogeneity in societies. In the same community, individuals differ on a variety of aspects that require cultural understanding and adjustment such as language, sexual orientation, ethnicity, religion, social class, and political affiliation (Triandis, 2006). This justifies Thomas, Lazarova, and Inkson (2005) proposition that interactional aspects of cultural intelligence are relevant for all professions. Moreover, in African countries for example, there are different ethnicities in a given locality, each ethnicity with differing normative values and practices. Hence, doing local business in such communities requires cultural intelligence.

*Moral potency*: also referred to in this study as moral intelligence. Moral intelligence was popularized by Boss (1994) in his article “the autonomy of moral intelligence” in which he asserted that moral intelligence is a genuine and one of the distinct autonomous intelligences. It involves moral reasoning that transcends into respect for values that are inherent in oneself and others (Boss, 1994) and is enacted through the virtues of truth, love, caring, empathy, and justice as well as acting based on one’s moral decisions (Boss, 1994; Clarcken, 2009). Moral intelligence is increasingly popular in leadership and business. It is posited that application of moral values is essential in business success (Kiel & Lennick, 2005; Lennick & Kiel, 2011).

Entrepreneurs are members of the larger societies and therefore expected to conduct business within the acceptable moral standards of a given society. Yet, the nature of their work as entrepreneurs pauses ethical challenges. To be successful in entrepreneurial activities, individuals are required to be imaginative, novel, and sensitive (Buchholz & Rosenthal, 2005) which should sensitize them to morals. However, these very requirements and the dynamics of doing business in a competitive environment engulf entrepreneurs in situations of complex ethical dilemmas, where they are most likely to be deceptive or break rules and promises in order to generate or exploit opportunities (Brenkert, 2009). For every individual, moral living is often an intricate task (Clarcken, 2009), then it should be even more problematic for the self-employed who must make a profit for their businesses to succeed or survive. This implies being able to make hard bargains and matching the demands of competition, which can hardly be achieved without flouting the rules. Hence it is not uncommon for entrepreneurs to be labeled as tricksters, crafty competitors or clever entrepreneurs (Brenkert, 2009). Such representations of entrepreneurial roles can discourage individuals with high moral standards from self-employment; since the moral behavior of business role models can entice or destruct the will of others (Chiu, Mirowska, & Hackett, 2016).

However, this is what moral intelligence concerns itself with; knowing what is right or wrong versus doing what is right or wrong (Kiel & Lennick, 2005). Having the ability to apply universal human principles to personal values, goals and actions implies that individuals are able to do good even when their personal or business goals are in conflict with core universal principles (Kiel & Lennick, 2005; Lennick & Kiel, 2011). Hence the preferred use of the construct “moral potency”, which denotes the psychological resources to act ethically, and not only focus on ethical behavior but on motivations to address ethical predicaments (Hannah & Avolio, 2010). Overall, these abilities impact on business through their effect on leadership, recognition of opportunities and manner of transacting (Balog, Baker, & Walker, 2014; Kiel & Lennick, 2005; Sivadas, Kleiser, Kellaris, & Dahlstrom, 2002). In addition, entrepreneurs with high moral standards tend to relate with stakeholders in ways that maintains their personal integrity and builds trust rather than fears of loss or failure (Bryant, 2009). Consequently, applying moral values to entrepreneurial tasks may portray one’s business positively among investors, customers, and community (Kiel & Lennick, 2005). These have consequences for success in self-employment in the long run. However, it is not known whether individuals with high moral standards could find self-employment an attractive career option; given that it presents on one hand complex ethical challenges, yet on the other hand it presents opportunity for noble contribution to society (Dana, 1996) through innovations, creating employment and wealth. In this regard, entrepreneurship is regarded as a moral career (Schervish, 2016) not only good for wealth reasons but also provides avenue for career success. However, it is not known to what extent this may influence self-employment intentions of individuals with high or low moral potency.

*Cognitive Styles:* Armstrong, Cools, & Sadler-Smith (2012) review of four decades of entrepreneurial cognition research has served to attract more research efforts in attempting to understand the mind and behavior of an entrepreneur. This is important for answering several questions regarding the entrepreneurial process, such as why some people and not others chose to be self-employed or recognize business opportunities or become more successful in business (Baron & Ward, 2004; Mitchell et al., 2007). These questions indicate that cognitive processes including perception, memory and reasoning (Kozhevnikov, Evans, & Kosslyn, 2014) are important in understanding the entrepreneurial process. Particularly, cognitive styles are more representative of cognitive processes that could differentiate entrepreneurs from non-entrepreneurs or successful ones from those that are less successful. Cognitive styles involve individuals’ preferences in obtaining, processing, evaluating, representing and using information (Allinson, Chell, & Hayes, 2000; Riding, R., & Rayner, 2013). There

exists different taxonomies of explaining and classifying cognitive styles (cf. Kozhevnikov et al., 2014; Riding & Rayner, 2013). However, the general agreement in entrepreneurial research is that cognitive styles play important roles in entrepreneurial behavior such as innovativeness (Armstrong et al., 2012; Kozhevnikov et al., 2014), opportunity recognition, planning and resource mobilization (Baron & Ward, 2004; Jill Kickul, Gundry, Barbosa, & Whitcanack, 2009), entrepreneurial self-efficacy and attitudes (Barbosa, Gerhardt, & Kickul, 2007; Poore, Forlines, Miller, Regan, & Irvine, 2014; Urban, 2012). These are important at different stages of the entrepreneurial process, signifying that the cognitive style of the entrepreneur will almost always have an impact on outcomes at every stage.

Overall, previous research employing different taxonomies of cognitive styles have revealed that entrepreneurs tend to be intuitive (e.g. Armstrong & Hird, 2009; Baldacchino, Ucbasaran, Cabantous, & Lockett, 2015; Barbosa et al., 2007; Molaei, Reza Zali, Hasan Mobaraki, & Yadollahi Farsi, 2014). On the other hand, there are arguments that balancing between linear and nonlinear styles enhances innovative behavior (Batra & Vohra, 2016; Ettl, Groves, Vance, & Hess, 2014) therefore important for entrepreneurial intentions and success. Despite the increase in amount of studies on cognitive styles and entrepreneurial behavior, this field is neglected and requires further attention (Armstrong et al., 2012; Baldacchino et al., 2015). Moreover, as can be seen above, there are contradictions in what could constitute an entrepreneurial cognitive style. The present study particularly examines the role of cognitive styles in formation of self-employment intentions (Manuscript #3), and argues that the contribution of a particular style is dependent on the context. In the context of unemployment, adaptive cognition, that is combining intuition and analysis is positively associated with self-employment intention.

### *Psychological Capital*

Psychological capital is described as a state of mind, consisting of positive psychological strengths (Avey, Reichard, Luthans, & Mhatre, 2011), therefore could be considered a positive mindset. In the application of theory of planned behavior to entrepreneurship, Krueger and Carsrud, (1993) listed several personal and situational factors that affect entrepreneurial intentions and behavior directly or indirectly via the belief systems proposed by the theory (Ajzen, 1991). The present study posits that psychological capital is one of those personal factors that affect intentions and behavior both directly and indirectly. Starting a business of one's own and achieving success require not only financial capital but also several other inputs. Particularly, psychological and social resources are required not

only for success but also the mental health of the entrepreneurs (Baron et al., 2016; Baron & Markman, 2000; 2003). The construct psychological capital (Goldsmith et al., 1997; Luthans et al., 2004) represents the psychological resources that individuals bring to their work. Based on positive psychology literature, psychological capital comprises of four resources including self-efficacy (confidence), optimism, hope and resilience (Luthans et al., 2007b, 2004; Luthans, Youssef-Morgan, & Avolio, 2015; Luthans & Youssef-Morgan, 2017). It has been suggested that these resources combined, make stronger contribution to business than tangible, human, and social capitals (Baluku et al., 2016b; Luthans et al., 2004). The study particularly investigates the role of general psychological capital as well as the specific aspects of efficacy and optimism in development of entrepreneurial intentions, entry (Manuscript #6) and their association to different entrepreneurial outcomes (Manuscript #8).

Each of these components of psychological capital play different roles in the process of starting and growing an enterprise. Self-Efficacy, or confidence, refers to an individual's belief in personal capacities to achieve a goal or complete a task (Bandura, 1997). Applied to self-employment, self-efficacy could be the force that drives individuals to undertake the risks of starting and managing a business venture (Boyd & Vozikis, 1994). Entrepreneurship is a complex role that is executed in a highly dynamic environment with numerous potential stressors, yet entrepreneurs with high psychological capital report low stress levels and high psychological wellbeing (Baron et al., 2016). Whereas all aspects of psychological capital could contribute to this, self-efficacy could be the basis for the motivation to accept a career that poses several challenges. Towards this direction, there is evidence that self-efficacy is positively associated with choice of a career in self-employment and development of entrepreneurial intentions (e.g. Boyd & Vozikis, 1994; Jain & Ali, 2013; McLaughlin, 2010; Piperopoulos & Dimov, 2015; Wang, Chang, Yao, & Liang, 2015; Zhao, Seibert, & Hills, 2005).

Optimism is another aspect of psychological capital that is reported to have substantial impact on ability to do business. It regards an individual's expectations of positive outcomes or making positive attributions about likelihood of success in short or long term (Luthans, Youssef, & Avolio, 2007). People take the risk of investing their resources even when there are uncertainties, because they expect positive returns on investment (Rigotti, Ryan, & Vaithianathan, 2011). Hence optimism is necessary for individuals to take steps towards self-employment entry even when it means taking risk of borrowing funds for startup (De Meza & Southey, 1996; Storey, 2011; Trevelyan, 2008). This could also be important in investments aimed at growing the business, as well persisting in self-

employment at the nascent phase when the returns on investment are minimal or even nonexistent.

Although the study does not independently focus on the roles of hope and resiliency, their effects on the entrepreneurial process cannot be ignored. Hope, which is the ability to develop pathways and persistence in pursuit of goals (Luthans et al., 2007b) is important for setting goals and strategies. This is an important task in the execution of entrepreneurial roles. In addition, the persistence aspect could be essential for commitment to the self-employment career path. This ability is complemented by the resilience resource. Resilience is a psychological capability to cope with both negative and positive events as well as ability to bounce back from adversity (Brandt, Gomes, & Boyanova, 2011; Luthans et al., 2007). It is mostly resourceful in coping with business stress (Baron et al., 2016). At the early stages of venture creation when business standards and procedures are not yet fully established (Gorgievski & Stephan, 2016), these psychological aspects could particularly be useful.

Overall, the construct psychological capital was first introduced to organizational studies at the turn of the century (Goldsmith et al., 1997; Luthans et al., 2004). To date, it has become a popular construct applied to the study of work attitudes, behavior, and outcomes. It is also increasingly attracting attention of entrepreneurship scholars. Its application could yet provide an important breakthrough to understanding why and how entrepreneurs tend to differ from non-entrepreneurs as well as gaining further insights on how to support prospecting and nascent entrepreneurs.

### ***Self-Determination Perspective***

Self-employment offers more benefits than just monetary benefits (Hamilton, 2000). In the contemporary career context, economic rewards are no longer the overriding targets for many individuals, but rather psychological career success (Hall, 2002). Therefore, as proposed by self-determination theory, an important benefit of work is gratification of psychological basic needs of autonomy, competence, and relatedness (Deci et al., 2001; Deci & Ryan, 2000; Gagné & Deci, 2005). Particularly, autonomy seems to be what most people strive for in the workplace as it facilitates achievement of organizational goals and personal agendas such as wellbeing (Gagné & Bhave, 2011; Hodson, 1991; Otto et al., 2013). When psychological needs are satisfied, it results into greater self-motivation, engagement and volition and consequently creativity, superior performance, and persistence (Deci & Ryan, 2000; Gagné & Deci, 2005; Ryan & Deci, 2000). Hence, self-determination, although not

commonly applied in entrepreneurship research, could be useful tool in explaining the motivation and goals of entrepreneurs as well as their behavior at the different phases of the entrepreneurial process.

The process and requirements for becoming self-employed; that is, establishing one's own venture is for many people difficult and frustrating. Moreover, one takes a risk of investing personal resources, yet there is no guarantee that there will be returns on investment. These discourage many individuals from pursuing a career in self-employment, especially when individuals have alternative opportunities in wage-employment. Therefore, only those with special motivations are able to accept the challenging task of starting a venture and waiting patiently for the outcomes in the long run. According to the assumptions of self-determination theory, one of the special motivations that drive individuals into this complex occupation is the pursuit for autonomy. Many self-employed individuals either left regular employment or have never sought salaried positions in organizations because of autonomy (Benz & Frey, 2008; Binder & Coad, 2013; Croson & Minniti, 2012). It is for this reason that even when self-employment is ambivalent, pays less and quite insecure at times (Georgellis & Yusuf, 2016; Millán, Hessels, Thurik, & Aguado, 2013), the self-employed report higher satisfaction and wellbeing (Baron et al., 2016; Berglund et al., 2015; Johansson Sevä, Vinberg, Nordenmark, & Strandh, 2016; Lange, 2012; Schneck, 2014). These suggest that autonomy is not only relevant for entry into self-employment but also could be the rationale for persistence. In subjective measures, autonomy is an important constitute of entrepreneurial success (Baron et al., 2016). Hence, in the present study, autonomy is assessed as an outcome of self-employment; especially in relation to psychological wellbeing as a measure of subjective success (manuscript #8). On the other hand, it is also investigated as a motivational force for the development of self-employment intentions and entry (Manuscript #5).

### **Entrepreneurial Socialization and Self-Employment Process**

Person-environment fit theories propose that both personal and environmental factors influence career choices (Holland, 1997). Individuals evaluate how the nature of work and the working environment are congruent to their abilities, attitudes, and values. The higher the congruence, the higher the likelihoods of going into the career, and consequently the higher chances of satisfaction. From Holland's (1997) theory of vocational personalities and work environments, it seems that there are individuals who are more ready than others to go into

entrepreneurship. This is because their personal attributes fit the characteristics of the entrepreneurial job. On the other hand, the role of social influences is recognized. For example the social cognitive theory proposes that whereas individuals can exercise personal agency to direct their career paths and career progress, environmental factors such as learning and support mechanisms play significant roles (Lent, Brown, & Hackett, 2000; 1994; Lent & Brown, 2013). Socialization especially helps in attitudinal and behavior changes (Starr & Fondas, 1992), which in turn affect career intentions and decisions. The present study focuses on two socialization mechanisms that have implications for entrepreneurial intentions, entry, and performance. The first mechanism is culture, which is measured at both personal and societal levels. The second is professional socialization through entrepreneurship education and training, broadly assessed, in this study, as entrepreneurial mentoring to including business learning that occurs formally and informally. Different forms of socialization have their different peculiar contributions to the entrepreneurial process, hence differentiating between them is important for theory and practice (Adamonienė & Astromskienė, 2015).

### ***Cultural Perspectives***

There is a long history of research on the role of culture in business situations. This begins with the pioneering work of Weber (1930). The emergence of the national cultural dimensions (Hofstede, 1984) increased investigations of the so-called entrepreneurial culture. A recent review of literature indicated that Hofstede's model is dominant in contemporary studies of entrepreneurial culture (Hayton & Cacciotti, 2013). Culture consists of values and practices which are foundational to the programming of individuals' minds (Franke, Hofstede, & Bond, 1991; Hofstede et al., 2010) hence influences a wide range of personal attributes and behavior (Mueller & Thomas, 2001). However, important to the present study is the idea that cultural values and practices are also applied to economic and entrepreneurial activities (Krueger, Linan, & Nabi, 2013; McGrath, MacMillan, Yang, & Tsai, 1992), hence the notion of entrepreneurial and non-entrepreneurial cultures. On the other hand, culture itself is increasingly becoming a business resource in form of values but also establishment of cultural businesses.

Hofstede's (1984) initial model comprised of four dimensions. However, the model has undergone several modifications and currently consists of six dimensions: power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity, long versus short term orientation, and indulgence versus restraint (Hofstede, 2011). These dimensions precisely connote how societies respond to basic social issues

(Minkov & Hofstede, 2011) therefore provide a framework for understanding why individuals from a given society behave or respond to stimuli in specific patterns. This includes how individuals behave in business situations or how they respond to business opportunities. However, it has been noted that the degree to which cultural values are extended to business contexts varies between societies (Frederking, 2004). In entrepreneurship, culture particularly is applied to perception of barriers and enablers of establishing and growing a business (Chand & Ghorbani, 2011; Migliore, 2011; Shinnar et al., 2012), which in turn influence people's choice to go into self-employment; as well as the entrepreneurial growth and activities in a given region or society (Davidsson, 1995; Huggins & Thompson, 2014, 2016; Tlaiss, 2014).

Chakraborty, Thompson, and Yehoue (2016) postulate that entrepreneurial competency is partly acquired through cultural socialization. Towards this end, culture has an influence on individual attributes that have implication for ability to go into and succeed in business, including risk attitude, need for achievement, locus of control, self-efficacy and innovativeness (Beugelsdijk, 2010; Krueger et al., 2013; Wennberg, Pathak, & Autio, 2013). From the Weberian perspective, culture facilitates acquisition of entrepreneurially relevant values such as work ethic, thrift, asceticism, and frugality (Dana, 1996). Culture also determines the value individuals attach to entrepreneurial processes and outcomes (Dana, 1997). Studies based on Hofstede's dimensions of national culture particularly indicate that entrepreneurship is associated with higher individualism, masculinity, future orientation as well as low uncertainty avoidance and power distance (e.g. Hamilton, 2013; Herranz, Krasa, & Villamil, 2015; Mueller & Thomas, 2001; Tlaiss, 2014; Wennekers, Thurik, Van Stel, & Noorderhaven, 2010). However, there are also studies demonstrating that cultural values for example relating to collectivism are not necessarily bad for entrepreneurship (Bullough, Renko, & AbdelZaher, 2013; Tung, Walls, & Frese, 2007). Hence, there is need to re-think what constitutes an entrepreneurial culture.

Hofstede's model has been critiqued as portraying culture as static, over simplifying cultural differences, excessive, unbalanced, inconsistent, and overlapping dimensions (McSweeney, 2002; Schmitz & Weber, 2014; Signorini, Wiesemes, & Murphy, 2009). Hence alternative models have been proposed. In the present study, particular attention is given to personal level cultural values. It is argued that within a particular national culture, there are wider variations partly attributed to growing diversities in many countries (Sharma, 2010; Tung, 2008). Given such flaws in conceptualization and measurement of national culture, Sharma (2010) developed a measure for operationalizing Hofstede's dimensions into

personal cultural personal values. Consequently, some manuscripts employ the national culture approach (Manuscripts #5, #6, and #9), while others focus on personal level cultural values (Manuscripts #3, #4, and #7).

### ***Entrepreneurial Mentoring Perspective***

Scholars, practitioners and policy makers have highlighted the significance of training prospecting and nascent entrepreneurs or business owner-managers to improve their skill sets including but not limited to creativity, decision making, as well as technical skills that are necessary for thriving in entrepreneurial roles. It is conceived that training is essential for entry, survival, and succeeding in business (Adamonienė & Astromskienė, 2015; Matlay, 2008; Nabi, Liñán, Fayolle, Krueger, & Walmsley, 2017; Pitts, 2008; Premand, Brodmann, Almeida, Grun, & Barouni, 2016; Saukkonen, Nukari, Ballard, & Levie, 2016; St-Jean & Audet, 2012). However, most of self-employed persons own small businesses, which have limited access to formal learning opportunities (Barrett, 2006; Price & McMullan, 2012). Particularly, small business owners may not have resources to hire professional trainers, and attending professional training may require sole self-employed individuals to halt business operations (Barrett, 2006); while others have difficulty in accessing entrepreneurial education because they operate in unstructured or informal work environments (Terjesen & Sullivan, 2011). Given that the study focuses in several groups including students, unemployed, wage and self-employed individuals, both in formal and informal situations, measurement of entrepreneurial learning with the concept “mentoring” was therefore preferred.

Mentoring generally involves a developmental relationship in which an unexperienced person learns from a more senior person (Beckett, 2010). In entrepreneurship, mentors are experienced and skilled entrepreneurs who support prospecting or nascent entrepreneurs (St-Jean & Audet, 2012). For those prospecting, entrepreneurship learning is important to strengthen not only the intent to establish one’s own business, but also the ability to maneuver through the difficult startup process. For those who have already established their business, mentoring enables them to learn technical and visionary skills which enable them bring changes to their enterprises (Pitts, 2008). This is necessary for success in a fast-paced competitive business environment. Mentoring is often provided in varying forms depending on the needs of the mentee, competencies of the mentor, and the context. Mentoring may include supporting protégés through coaching, sponsorships, role modeling, experience sharing, hands-on exposure training, linkage to useful business and

professional networks, information about opportunities, counseling, friendship, encouragement and persuasion as well as giving advice or recommendations (Beckett, 2010; Gong, Chen, & Lee, 2011; Lefebvre & Redien-Collot, 2013; Rickard & Rickard, 2009; St-Jean & Audet, 2012; St-Jean & Mathieu, 2015). Thus, mentoring is not always about development of technical skills, but also an opportunity for accessing emotional support, information and connections as well as improved sense of professional identity and belonging (Lefebvre & Redien-Collot, 2013; St-Jean & Audet, 2012; Terjesen & Sullivan, 2011) that can improve the attitudes (Audet & Couteret, 2012) which is important for entrepreneurial activity intention and enhancement of growth propensity of novice entrepreneurs. Hence, the call for mentors to focus on learning needs regarding skill and experience of the mentees and to offer support to protégés for as long as it is needed (Barrett, 2006).

Mentoring literature emphasizes coaching, role modeling and the quality of relationship as essential in the process of enhancing professional growth. Regarding coaching as a mentoring approach, it plays a double role of enabling the mentee acquire skills but also the coach can catalyze the entrepreneurial behavior of the young entrepreneur (Audet & Couteret, 2012). An important form of mentoring, that is rather informal, is role modeling. It is a powerful tool for enhancing positive attitudes towards entrepreneurship among young people (Lafuente & Vaillant, 2013). Importantly, role modeling aids the development of professional self-concept particularly in the early stages of career development (Gibson, 2003). This is important for prospecting entrepreneurs to identify themselves with the entrepreneurship profession. In addition to learning and aiding development of self-concept, role models are a source of inspiration, motivation, and behavior modification (Gibson, 2004). It also facilitates learning about entrepreneurial tasks and competences, which may reduce fear of failure (Wyrwich, Stuetzer, & Sternberg, 2016) that are essential for development of positive entrepreneurship attitudes, intentions and implementation of the intentions to own a business. Despite the emphasis on modeling, coaching, or training, the importance of other mentoring approaches such as information giving, counseling and networking should not be ignored. All of these are important at all stages of enterprise formation and development, hence mentoring is referred to as home to run to when the going gets tough (Beckett, 2010). Beyond formation of attitudes and intention, empirical evidence shows that mentoring is beneficial also at entry stage, in persisting and enhances likelihoods of success. Novice entrepreneurs have to deal with the challenges of startup, to which mentors can help resolve, correct or support in coping (St-Jean & Audet, 2012; Waters, McCabe, Kiellerup, & Kiellerup, 2002) while experiential learning through exposure,

reflection, competition and collaboration enhances startup (Saukkonen et al., 2016) and can result into improved potential of young entrepreneurs to succeed and persist in business (Culbertson, 2014).

This review portrays mentoring as an appealing construct in self-employment process, essential for intentions, entry and dealing with problems experienced in establishing and growing a business. However, there is still limited research (St-Jean & Audet, 2012; Terjesen & Sullivan, 2011) particularly to link learning acquired through mentoring to entrepreneurial outcomes. There is also need for more empirical evidence to highlight the outcomes of mentoring at the different stages of entrepreneurship process. It is noted that most of entrepreneurship training literature focuses on outcomes in the short term such as formation of attitudes and intentions (Nabi et al., 2017). Yet there is need for research that focuses on development of entrepreneurial mindset through entrepreneurial training, as well as the role of training in transition from intention to behavior (Nabi et al., 2017). The present study demonstrates how mentoring interacts with psychological and cultural influences to impact on the self-employment process. Specifically, Manuscript #5 explores how mentoring interacts with autonomy to enhance self-employment intentions. Manuscript #6 furthers the debate by focusing on the role of mentoring in formation of attitudes and intentions as well as actual entry into self-employment; and how mentoring interacts with culture and psychological capital in formation of self-employment attitudes and intentions.

### **Conceptual Framework**

The foregoing treatise has highlighted the research questions and the theoretical framework that the dissertation adopts to address them. The main constructs from the different perspectives constitute a unified conceptual model of relationships that are investigated in the dissertation (see Figure 1).

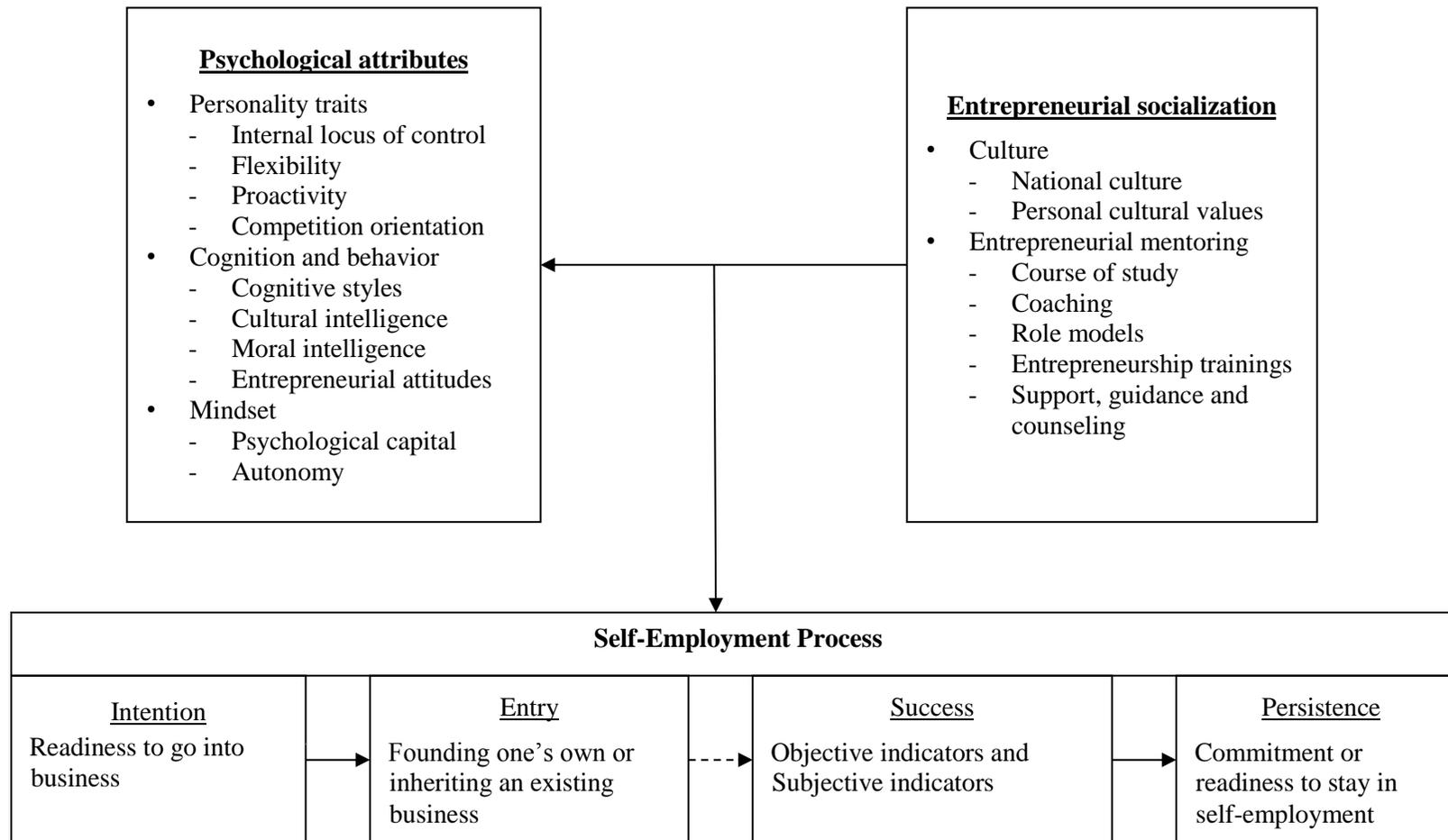


Figure 2. Conceptual model for the dissertation. The dotted relationship (between self-employment entry and success was not investigated). Different manuscripts focus on the effects of different combinations of psychological attributes and socialization aspects on specific parts of the entrepreneurial process.

The conceptual model above is a unified framework consisting of ideas from various theoretical models explained in the previous section. Particularly, the model comprises of concepts from entrepreneurial socialization model (Starr & Fondas, 1992), planned behavior theory (Ajzen, 1991) and self-determination (Deci & Ryan, 1980; Ryan & Deci, 2000). The entrepreneurial process and behaviors involved are complex necessitating adoption of unified models. Each of these models proposes specific antecedents of behavior. It is assumed that bringing together different matching antecedents could explain bigger variances in intentions, entry, success and persistence. This could also help provide answers to unresolved questions regarding entrepreneurs and the entrepreneurial process; such as who becomes or who wants to become an entrepreneur (e.g. Almobaireek, 2012; Henderson & Robertson, 2000; Poschke, 2013), or who is likely to become an entrepreneur in specific circumstances (e.g. Utsch, Rauch, Rothfuss, & Frese, 1999), why are some entrepreneurs happy while others are sad, why do some succeed while others fail (e.g. Baron et al., 2016; Hartog et al., 2010; Hundley, 2001; Markman & Baron, 2003; Michelacci & Silva, 2007). While these questions have been around for quite a long time, there are still numerous knowledge gaps such as what enables some to implement intentions while others do not, what explains the contradictory findings (for example, regarding impact of entrepreneurial education on entrepreneurial outcomes), the link between entrepreneurial training and development of entrepreneurial mindsets, intentions often explained with groups of students, are such results generalizable to non-student groups (e.g. Fayolle, Liñán, & Moriano, 2014; Liñán & Fayolle, 2015; Nabi et al., 2017). Using the above model, this dissertation attempts to answer four fundamental questions, as detailed below.

## **Description of Research Questions and Overview of Manuscripts**

### **Research Question 1: How do Protean attributes and socialization factors work together to influence readiness to go into business?**

Towards the beginning of the new millennium, and the 21<sup>st</sup> century, it was predicted that careers would become more boundary-less and protean (Arthur, 1994; Hall, 1996). It is assumed that in a fast paced world where career systems are rapidly changing, inflexibility in endorsements about one's career hinders career development (Arthur, 1994). Individuals are instead encouraged to be flexible, adaptive, value driven and to self-determinedly take charge of their career development (Briscoe, Hall, & DeMuth, 2006; Lent & Brown, 2013) and to focus on subjective rather than the economic aspects of success (Hall, 2002). These describe what is referred to as protean career attitude. Protean and boundary-less careers particularly encourage individuals to exercise different forms of career mobility and to depend less on organizational career trajectories (Sullivan & Arthur, 2006). Hence studies of career mobility have focused on protean career attitude as a predictor of mobility behavior (e.g. Cao, Hirschi, & Deller, 2012; Forrier, Sels, & Stynen, 2009). Self-employment could be considered a form of physical mobility that is changing from one's specialization of study or movement from organizational career to an entrepreneurial career. However, there are no studies linking self-employment or entrepreneurial behavior to protean mentality and behaviors. Therefore, just like in general career mobility, could it be that individuals with a protean mindset are more likely to be ready for a career in entrepreneurship? Yet we already know that movement into entrepreneurship is influenced by socialization factors (Adamonienė & Astromskienė, 2015; Nabi et al., 2017; Starr & Fondas, 1992), whereby individuals with educational background in business or related fields are more likely to opt for an entrepreneurial career. Hence the present study seeks to explain whether, in addition to field of study or other forms of entrepreneurial socialization, does having a protean mindset increase the likelihood of becoming self-employed? To answer this question, two manuscripts are presented. The first manuscript discusses the role of protean-related traits and protean career attitude of career orientation on entrepreneurial intentions. The second manuscript focuses on the interaction of protean-related traits and professional socialization on entrepreneurial intention.

***Manuscript 1: "Career Mobility in Young Professionals: How a Protean Career Personality Shapes International Mobility and Entrepreneurial Intentions"*** focuses on the impact of protean personality traits (personal initiative and flexibility) and protean career

attitude (career orientation) on readiness of students and young psychology graduates in Germany to engage in career mobility behaviors. Against the background of globalized work environment and dynamic labor market, individuals are called to take more personal control of their career development (Lent & Brown, 2013), which goes hand in hand with flexibility in career paths if success is to be achieved (Arthur, 2014; Sullivan & Baruch, 2009); this paper examines impact of personal initiative and flexibility on willingness to be mobile (entrepreneurial intention and expatriation intention). The mediation effect of career orientation is also examined. Of specific interest to this dissertation are the effects on entrepreneurial intention. Regarding protean personality traits, only personal initiative was associated with entrepreneurial intentions in the student sample. This association was mediated by career orientation. In the sample of psychology graduates, only flexibility was found to be essential for entrepreneurial intentions. The implication pointed out relates to vocational guidance and counseling, that for individuals who still have to choose a career path, both protean personality traits and career orientation determine one's choice of mobility option. However, for those already graduated, mostly because they already have firm decisions regarding their career paths, only flexibility seems important.

***Manuscript 2: The Role of Selection and Socialization Processes in Career Mobility: Explaining Expatriation and Entrepreneurial Intentions.*** This manuscript extends the focus of Manuscript 1 from studying the effect of protean-traits to include the interaction of these traits with professional socialization. Based on the person-fit literature (e.g. Holland, 1997; Van Vianen, 2000), the selection process is measured with competition orientation and career orientation, while the socialization process is measured with course and length of study. The assumptions were tested with a sample of 544 German university students from different fields of study including business management, psychology, teacher education, and natural sciences. The study reveals that career orientation and studying a business related course were associated to higher entrepreneurial intentions. On the other hand, expatriation intentions were determined by career orientation as well as course and length of study. The effect of competition orientation was not confirmed for either aspects of mobility. The paper provides a theoretical implication regarding the uniqueness of entrepreneurs, which is traced in personal attributes. The paper suggests that future research efforts should focus on the role of competition orientation in the entrepreneurial process, given that the business environment is ever competitive yet competition orientation seems to have only marginal effects in driving young people into entrepreneurial roles.

## **Research Question 2: How does one's cognitive attributes and cultural values affect intentions to make a career in self-employment?**

From the theory of planned behavior (Ajzen, 1991), an initial paramount step towards an entrepreneurial career is development of intentions, since this has been found to predict actual entrepreneurial behavior (Kautonen et al., 2015; Kolvereid & Isaksen, 2006). However, the theory posits that intentions are a derivative of attitudes towards behavior, subjective norm and perceived behavioral control; which are also result from behavioral beliefs, normative beliefs and control beliefs respectively (Ajzen, 1991, 2002). The application of this process to development of entrepreneurial intentions has been confirmed by several studies, given that its most widely applied to the study of entrepreneurial intentions, and tend to explain up to 60% of the variance in intentions (Liñán & Fayolle, 2015).

Cognition is seen as a field that helps to answer questions that other perspectives have failed to answer to present, for example it is suggested that the trait perspective failed in its attempt to explain the uniqueness of entrepreneurs while economic theories too have not explained some questions relating to the process of how and why entrepreneurship occurs (Mitchell et al., 2002). They propose that cognition research could help answer these questions by generating knowledge of how entrepreneurs think and why they do what they do. Fast forward, the theory of planned behavior has enabled scholars to study the cognitive process in the formation of entrepreneurial intentions. However, the studies have focused on the constructs proposed in the model such as attitudes, efficacy, or perceived control. This limits the growth of the theory. Beyond planned behavior theory constructs, research has also focused on cognitive styles (Kickul, Gundry, Barbosa, & Simms, 2010). However, there other cognitive constructs that are increasingly influential in organizational behavior, and could equally be important to advancing entrepreneurship literature. On the other hand, it is posited that cognitive and social factors tend to act together on a person's behavior, implying that the effect of cognition on entrepreneurial intentions could be contingent on social influences, yet these are not fully incorporated in existing entrepreneurial cognition frameworks (Siu & Lo, 2013). Siu and Lo particularly investigated the effect of individualistic-collectivistic cultural dimension and noted that the need to incorporate other cultural facets.

The studies presented in this dissertation (Manuscripts #3 and #4) address these gaps by focusing on how cognitive attributes and cultural attributes interact to influence entrepreneurial intentions. Moreover, culture is measured at both macro (national culture) and

micro (personal cultural values) levels. Manuscript #3 particularly proposes that the impact of cognitive constructs such as cognitive styles could be context specific and varies with cultural and moral values. This is tested with a sample of unemployed individuals. The constructs of the planned behavior model are presented to have linear effects on intentions. However, the present study proposes that there are interactive and indirect effects of the constructs that increase the strength of the model in predicting entrepreneurial intentions.

***Manuscript 3: Impact of Personal Cultural Orientations and Moral Potency on Self-Employment Intentions: The Moderating Role of Cognitive Styles.*** This is a study of entrepreneurial intentions of 227 unemployed youth in East Africa. The study, grounded on the situated meta-cognition model of entrepreneurial mindset and theory of planned behavior, demonstrates that self-employment is an attractive employment option for unemployed youths. The results especially reveal that self-employment is attractive to young unemployed people who tend to use adaptive, rather than analytic or intuitive cognitive styles. But intentions also tend to be high for individuals using intuitive style but with low risk aversion, or with high moral potency. The assumption that intuitive style, commonly presented in literature as the entrepreneurial thinking style (e.g. Allinson, Chell, & Hayes, 2000), or analytical styles are not suited to development of entrepreneurial intentions among the unemployed was supported. The study also argues that for individuals with high moral potency (also referred to as moral intelligence in the manuscript) were more likely to evaluate self-employment as an appropriate employment alternative than remaining unemployed, despite the moral challenges conjoined with doing business. However, the entrepreneurial aspects (such as social entrepreneurship) make self-employment a morally attractive career path.

***Manuscript 4: Interactive Effect of Control and Normative Beliefs on Entrepreneurial Attitudes and Self-employment Intentions: The Role of Internal Locus of Control and Individualism.*** This is another study assessing self-employment intention among university students. However, it differs from manuscripts #1 and #2 in the predictors of focus and includes a cross cultural comparison. The paper employs the theory of planned behavior and argues that internal locus of control; similar to control beliefs is an antecedent of entrepreneurial intention. Similarly, the paper also argues that personal cultural orientations involve norms that encourage or discourage people from engaging in self-employment activities. It is also assumed that aspects of the planned behavior model interact to have greater impact on self-employment intentions. Using a cross sectional sample of 590 students, it was found that internal locus of control impacts on self-employment intentions

through entrepreneurial attitudes. Moreover, both direct and indirect effects were moderated by individualistic normative beliefs. The findings relating to locus of control are consistent with the first and second manuscripts that highlight the role of protean personality attributes in willingness to go into self-employment. The paper's theoretical contribution regards extension of theory of planned behavior in its application to entrepreneurship research. That is, normative beliefs, control beliefs and behavioral attitudes are not only directly related to intention, but there are potential interactions between these predictors, hence increasing the effect on behavioral intention.

**Research question 3: What psychological attributes are necessary for the effectiveness of entrepreneurial mentoring in leading to higher self-employment intentions and entry**

This research question derives from and furthers research question two. A major gap in entrepreneurial literature regards implementation of entrepreneurial intentions (Liñán & Fayolle, 2015; Nabi et al., 2017). That is, why do some individuals with high intentions manage and others fail to startup their business? How do people negotiate their entry into self-employment? What psychological processes are at play and what psychological resources are critical in the course of enacting intentions? What barriers or support mechanisms hinder or facilitate implementation of entrepreneurial intentions? There are not many studies that have ventured into investigating the link between entrepreneurial intentions and behavior. Theoretical propositions suggest that perceived control, which includes efficacy is what determines whether individuals will implement their behavioral intentions (Ajzen, 2002; Boyd & Vozikis, 1994). Only a few empirical research efforts have ventured into investigating, and do provide support for this proposition (e.g. Kautonen et al., 2015; Van Gelderen, Kautonen, & Fink, 2015). This suggests that cognitive resources, particularly an entrepreneurial mindset could provide some of the answers to these questions. Overall, recent literature reviews have highlighted that entrepreneurial intentions do not always translate into startup behavior and also reveal that little is known about how intentions transforms into behavior and call for research to bridge this knowledge gap (e.g. Nabi et al., 2017; Pittaway & Cope, 2007). Manuscripts #5 and #6 are intended to contribute to this debate. Manuscript 5 traces the development of entrepreneurial intentions to the interaction of socialization (mentoring) and psychological states related to motivation (autonomy). Manuscript 6 furthers the discussion by focusing on the journey from mentoring to intentions and to action and highlights the role of psychological resources in this process.

***Manuscript 5: Self-determination and Entrepreneurial Intentions: The Role of Autonomy in the Mentoring - Intentions Relationship.*** This is another cross cultural study of entrepreneurial intentions of young people in Germany and East Africa. In addition, a multi-group analysis of students, unemployed and employed individuals is made. Using self-determination theory (Deci & Ryan, 1980; Ryan & Deci, 2002; Ryan & Deci, 2000) and the model for entrepreneurial socialization and organization formation (Starr & Fondas, 1992), the study examines the interactive effects of mentoring and autonomy on entrepreneurial intentions. Mentoring is a common intervention for enhancing entrepreneurship growth, but its effectiveness is dependent on several factors relating to mentors, mentees and the context (e.g. Bisk, 2002). It is argued that autonomy, is one of the psychological attributes that are essential for entrepreneurial behavior (Patel & Thatcher, 2014); including transforming knowledge and skills gained from mentoring into concrete entrepreneurial intentions. The study involved a sample of 1,509 participants (799 final year university students, 220 unemployed, and 490 wage-employed) from Germany, Uganda, and Kenya. The cross cultural analysis indicated that the association of mentoring and autonomy with entrepreneurial intentions was highest in Germany. On the overall, results confirmed that entrepreneurial mentoring was more effective when individuals have high levels of autonomy; hence ability to take personal decisions self-determinedly is important to translate entrepreneurial mentoring into intentions to start one's own business. However, this effect was not observed among employed people.

***Manuscript 6: Predicting Self-Employment Intentions and Entry: An Investigation of the Impact of Mentoring, Entrepreneurial Attitudes, Psychological Capital and Culture.*** This is a longitudinal study that focuses not only on development of intentions, but also the movement from intentions to actual entry into self-employment. 288 German and 498 East African students participated in the study; and a followed up survey 6 – 18 months after graduation. The findings of this study confirm those of Study 5 that the impact of mentoring on entrepreneurial attitudes and intention are higher in Germany compared to East Africa, differences in quality of entrepreneurial mentoring facilitated by level of economic and entrepreneurship development in a given country. Psychological capital was also found to play substantial roles, such that mentoring is associated with high entrepreneurial attitude and intentions for individuals with strong psychological resources. The follow-up study revealed that intentions and continuous mentoring predict the likelihoods of being self-employed, while psychological capital did not have impact on likelihoods of entry into self-employment. Instead availability of financial capital was found to play a major role. Moreover, significant

differences were found between Germany and East Africa. Likelihoods to go into self-employment were lower for Germany. These differences are explained by focusing on variations in culture and economic conditions.

**Research Question 4: What personal attributes and socialization factors are critical for the realization of different entrepreneurial outcomes?**

The essentiality of entrepreneurship for individuals and economies has been widely highlighted. For individuals, it is a means to create wealth (Hitt et al., 2001), or to overcome unemployment (Chigunta, 2017; Falco & Haywood, 2016), or to make a successful career given that entrepreneurship offers better opportunities to achieve some of most important psychological career goals that people seek today such as autonomy (Hall, 2002). For the nations, it is a means to enhancing economic development and resilience through creation of employment opportunities, innovation, and trade (Bozoki & Richter, 2016; Obschonka, Silbereisen, & Schmitt-Rodermund, 2015; Praag & Versloot, 2008; Williams & Shepherd, 2016). These benefits are not automatic. Individuals have to ensure that their businesses are successful and require persistence. Whereas self-employment is a leading provider of jobs in less developed countries (Berge, Bjorvatn, & Tungodden, 2014; Gindling & Newhouse, 2014), success is elusive for many entrepreneurs in these countries (Gindling & Newhouse, 2014). There is also a continuing debate on what constitutes success, and why some people are successful entrepreneurs than others. Success has mostly been explained with reference to economic parameters such as profits, sales increases, and company growth (Baron et al., 2016). However, some individuals go into self-employment activities with other motives beyond financial goals, for example pursuit for autonomy at work (Croson & Minniti, 2012; Kolvereid, 1996; van Gelderen & Jansen, 2006) and other nonfinancial benefits (Baron et al., 2016; Hmieleski & Corbett, 2008). Hence both economic and psychological outcomes of entrepreneurial activities need to be investigated.

Given past emphasis on economic outcomes, success is mostly predicted with economic factors such as financial and human capital (Hsu, 2007; Mallon, Klinger, & Lanivich, 2015; Unger, Rauch, Frese, & Rosenbusch, 2011). However, there is merging evidence that psychological capabilities and resources are important for entrepreneurial success (Baluku et al., 2016a, 2016b; Baron et al., 2016; Frese, Brantjes, & Hoorn, 2002; Gideon & Baron, 2003), and could predict success beyond financial and human capital even when success is measured with economic parameters (Baluku et al., 2016a, 2016b). It is also posited that environmental factors could influence the role of psychological factors in

determining entrepreneurial success (Frese et al., 2002). Manuscripts #7 to #9 contribute to this debate by investigating the interaction effects of psychological and cultural factors on different subjective and objective outcomes of self-employment; including willingness to remain self-employed.

***Manuscript 7: Impact of Personal Cultural Values and Competences on Subjective Success in Self-employment in Multi-Ethnic Societies.*** The study measures success with job satisfaction. Subjective measures such as satisfaction and wellbeing are increasingly recognized as important benefits that entrepreneurs seek alongside the financial goals (Baron et al., 2016). Moreover, in the era of protean careers, individuals are driven more by psychological rather than economic goals (Hall, 2002). The paper argues that success in self-employment in multi-ethnic, just like in cross cultural business, is to some degree affected by one's personal cultural values and behavioral cultural intelligence. Using Sharma's (2010) personal cultural orientation measures, the study particularly examines the impact of independence and social inequality values. As expected, the findings of this study show that interdependence and social inequality values were positively associated to subjective success (job satisfaction) in collectivistic culture (East Africa) than in individualistic culture (Germany). Furthermore, behavioral cultural intelligence mediated the effects of personal cultural values on success for the East African sample. In practical terms, the study suggests that cultural intelligence is not only important for cross cultural business contexts but also for doing business in multiethnic locations. And those personal cultural values also affect how individuals relate with stakeholders to the business, hence directly and indirectly affecting success.

***Manuscript 8: Positive Mindset and Entrepreneurial Outcomes: The Magical Contributions of Psychological Resources and Autonomy.*** This manuscript furthers the debate on success in self-employment drawing from assumptions of self-determination theory and psychological capital literature. But also focuses on both objective and subjective outcomes of self-employment. The paper reports results of three independent studies. Study 1 examined the effect of psychological capital on entrepreneurial outcomes among owners of small firms in Uganda, specifically the role of optimism and self-efficacy aspects. Based on assumption that optimism enhances efficacy (Luthans, Avolio, Avey, & Norman, 2007a), it was hypothesized that optimism affects entrepreneurial outcomes through self-efficacy. The direct and indirect effects were confirmed. Study 2 examined the impact of psychological capital and autonomy on entrepreneurial outcomes of young self-employed individuals in Uganda. The results of this study indicated that high levels of psychological capital and

autonomy are essential for entrepreneurs' satisfaction and commitment to entrepreneurial career roles. In addition, interactive effects of psychological capital and autonomy on both outcomes were found. Study 3 replicates Study 2 among a sample of 81 self-employed individuals in Germany. However, more outcomes including meaning in life (as an indicator of wellbeing) and income (as an objective success measure) were assessed. Both psychological capital and autonomy were found to have substantial positive effects on subjective measures (entrepreneurs' satisfaction, life satisfaction) but only marginal effects on the objective measure. However, the study reports significant interactive effects of psychological capital and autonomy on income. Overall, the paper suggests that developing psychological resources and capacity for autonomous action should be essential components of entrepreneurial training and support interventions.

***Manuscript 9: Self-Determination Theory and Persistence: A Cross-Cultural Study of Eudaimonic Well-being, Intrinsic Satisfaction and Career Commitment.*** This manuscript continues with the discussion of success and readiness to remain in the self-employment career path. Entrepreneurship development in a country depends not only on number of startups, but on how successful the startups become, and if ventures can be sustained. Therefore, successful self-employment is critical to the contribution of entrepreneurship to economic development. Self-determination theory (Deci & Ryan, 2000) proposes that satisfaction of psychological needs is an important goal, that affects motivation for work, hence could be important for commitment and persistence. Yet, satisfaction of psychological needs is an important part of eudaimonic wellbeing (Ryan et al., 2013; Samman, 2007). The study therefore examines how eudaimonic wellbeing facets (autonomy, competence, relatedness, and meaning in life) affect general job satisfaction and commitment to one's current form of employment. Using a sample of self- and salary-employed individuals from Germany, Uganda, and Kenya, it was established that self-employed persons have higher intentions to remain in their current form of employment, than the salary-employed, at high levels of autonomy, competence and meaning in life. However, variations among countries were observed, suggesting the role of culture in persistence to self-employment.

## **General Discussion**

The benefits of self-employment or entrepreneurship to individuals, organizations (in the case of entrepreneurship), and economies are not unknown. Popular and scholarly literature have unequivocally highlighted that entrepreneurship is what is required to overcome poverty, reduce unemployment, enhance economic growth and resilience (e.g. Chigunta, 2017; Liñán & Fernandez-Serrano, 2014; Naude & Havenga, 2005; Praag & Versloot, 2008; Wennekers, van Wennekers, Thurik, & Reynolds, 2005; Williams, Vorley, & Ketikidis, 2013). Consequently, self-employment is being promoted in developed, emerging and less developed economies through entrepreneurship education, special entrepreneurship programs, and seed funding. In addition to the economic payoffs, self-employment also offers individuals prospects for successful career life. Importantly, in terms of career development, it has been suggested that individuals today seek psychological rather than monetary rewards at work (Hall, 2002). Evidence suggests psychological outcomes of work such as autonomy, wellbeing, and satisfaction are more likely in self-employment (Berglund, Johansson Sevä, & Strandh, 2015; Binder & Coad, 2013; Millán, Hessels, Thurik, & Aguado, 2013; Schneck, 2014). It is therefore important not only to increase number of individuals going into self-employment, but also enabling individuals to succeed and remain in self-employment. Towards this goal, the studies presented in this dissertation provide empirical evidences that contribute to the understanding of how a wide range of personal and socialization variables combine in facilitating development of self-employment intention, entry, success, and willingness to stay self-employed.

### **Impact of Protean Attributes and Professional Socialization on Entrepreneurial Intentions**

The first research question of this dissertation stated; “How do Protean attributes and socialization factors work together to influence readiness to go into business?” Manuscripts #1 and #2 are dedicated to answering this question. The term Protean attributes in this study is used to classify traits that are related to adaptability, fluidity or versatility in behavior. The manuscripts consider entrepreneurship as a career mobility behavior and hence investigates how protean attributes and socialization impact on entrepreneurial intention in comparison with other mobility behaviors, particularly expatriation intention. Manuscript #1 specifically discusses how protean career related personality traits and values shape entrepreneurial and international mobility intentions of university students and psychology graduates in

Germany. The study tested whether protean traits including personal initiative and flexibility affect entrepreneurial and expatriation intentions via protean values (particularly career orientation). To further this discussion, Manuscript #2 focuses on the interactive effects of selection process (protean values) and socialization process (professional socialization) on entrepreneurial and expatriation intentions of university students in Germany. The values considered in this study include career orientation and competition orientation. While professional socialization included the impact of course and length of study. For purposes of this dissertation, discussion is confined to the impact of these protean constructs on entrepreneurial intention only.

Results of these two manuscripts indicate that personal initiative trait has substantial effect on entrepreneurial intentions of university students, while the flexibility trait was associated with entrepreneurial intentions of psychology graduates. Enterprising personality consists of several traits such as extraversion, achievement motivation, risk-taking ability, proactivity, optimism, confidence, and adventurous (Holland, 1997; Suárez-Álvarez, Pedrosa, García-Cueto, & Muñoz, 2014; Zhao, Seibert, & Lumpkin, 2010). From the selection process or person-career fit perspectives, it is expected that individuals exhibiting these traits should be attracted to an enterprising career (Berings, De Fruyt, & Bouwen, 2004; Holland, 1997; Schröder & Schmitt-Rodermund, 2006). However, in the era of protean careers, protean-related traits could play an increasingly important role in selection of career paths. Viewed from the mobility perspective, entrepreneurship is a career path alternative that is available to all individuals, although only a few are professionally socialized in this field. Therefore, individuals with a protean mindset are still likely to consider a career outside their professional training or geographical location. The results in Manuscript #1 confirm this assumption. University students with high personal initiative were more willing to go into entrepreneurship; although this is not true for graduates. Personal initiative involves being active and self-starting (Fay & Frese, 2001) which enables students particularly towards the end of their university degree courses to explore possibilities and opportunities in entrepreneurship, even when entrepreneurship is not their learned trade.

On one hand personal initiative is useful for students to explore different career options, hence opening up opportunities to appreciate which career paths are suited for their career development goals; which is important adaptive career behavior for individuals still at the student status, in line with social cognitive model of career self-management (Lent & Brown, 2013). On the other hand, most individuals already have choices of preferred careers paths at the time of graduation, and therefore personal initiative may not be relevant for

developing interest in changing career path to entrepreneurship, rather flexibility might be the enabler. This is also in line with the adaptive career behaviors of individuals at worker status in the social cognitive model of career self-management (Lent & Brown, 2013). This knowledge is important for protean career and career-self management theories, highlighting when or in which circumstances particular attributes play vital roles.

Concerning the impact of protean attitudes and values, both manuscripts reveal that career orientation, but not competition orientation, was positively correlated to entrepreneurial intention of university students. However, this relationship could not be replicated in the sample of psychology graduates. It has been suggested that work-related values and attitudes play a pivotal role in influencing person-work fit (Berings et al., 2004). Considering career orientation as a career attitude that depicts one's ambition and desire for career success (Otto, Roe, Sobiraj, Baluku, & Garrido Vásquez, 2017; Tschopp, Grote, & Gerber, 2014), it is likely that many individuals who are already working may not consider entrepreneurship as offering better opportunities to achieving their career goals in comparison to their present jobs. However, it could also matter which kind of career goals one desires to achieve, for example autonomy versus stability of income. Given that the study was conducted in Germany where ambiguity tolerance is relatively low (Hofstede, Hofstede, & Minkov, 2010), it is likely that most individuals who are already working consider stability of income in salaried employment as offering more chances for advancement than entrepreneurship; taking into account the uncertainties involved in business. However, for students who have higher career orientation, entrepreneurship offers, in the first place, the fastest means to obtain employment, hence seen as a path to career success. Nonetheless, it is also possible that during course of study, students are not sure of which employment opportunities are available and therefore keep an open attitude towards an entrepreneurial career in case they do not succeed in the labor market. Consequently, career-oriented students with personal initiative are more likely to explore possibilities of making a successful career in entrepreneurship; which explains why career orientation mediates the effect of personal initiative on entrepreneurial intention (Manuscript #1).

Overall, it seems most of employed individuals generally tend to shy away from entrepreneurship as is also indicated by findings in Manuscript #9; yet, entrepreneurship seems to be increasingly appealing to students as revealed in multitudes of entrepreneurial intention research among students. Beyond personal initiative and career orientation, increased preference for self-employment among students can be attributed to increased entrepreneurship and innovations education as results in Manuscripts #2, #5 and #6 suggest,

whereby students who have access to business training or entrepreneurial mentoring have stronger entrepreneurial attitudes and intentions. This also supports previous research that students are more likely to create new ventures in the near future than employed individuals (Åstebro, Bazzazian, & Braguinsky, 2012). Results in Manuscript #2 particularly reveal that business administration students have higher willingness to go into entrepreneurship compared to other students (psychology, teacher education, engineering and natural sciences), further demonstrating the importance of selection and socialization mechanisms. An important observation in this study however, is that entrepreneurial intentions of psychology students were higher among those towards completion of their degree studies, yet the intention tends to be lower at advanced stages of study for the other courses. Psychology as professional field presents opportunities in traditional organizational employment in both clinical and management positions. Yet, it also presents opportunities for private practice, both in therapeutic and consulting business, which are also avenues for professional career success. It seems that psychology students develop intentions, during the course of study, to go into private practice at some point in future.

Taken together, and in answering the research question, the findings presented in Manuscripts #1 and #2 adduce that protean-related traits (personal initiative and flexibility) are associated with willingness to go into entrepreneurship, which association is mediated by protean attitudes (career orientation) among some populations. Manuscript #2 results show variations in entrepreneurial intentions by course and length of study, signifying the role of socialization process. However, interaction effects of career orientation and socialization processes in influencing entrepreneurial intentions were not confirmed.

### **Effects of Cognitive Attributes and Cultural Values on Self-Employment Intentions**

The second research question stated “How does one’s cognitive attributes and cultural values affect intentions to make a career in self-employment?” This question is answered in Manuscripts #3 and #4. Cognitive theory, and more heavily, the TPB (Ajzen, 1991) has facilitated the surge in research of cognitive predictors of entrepreneurial intentions. These manuscripts contribute to application of cognition to predict entrepreneurial intentions by proposing that there are potential interaction effects of the aspects of the planned behavior model. Beyond the TPB, studies discussed in this sub-section also focus on interactions of further cognitive constructs: cognitive styles and moral potency/ intelligence with personal and national cultural values in predicting entrepreneurial intentions.

Manuscript #4 tests the possible linkages between the predictors of behavioral intention in the TPB, in formation of self-employment intention among university students. Hence the study proposes that some aspects of the model play more than one role in the development of self-employment intentions. TPB proposes that behavioral intention is determined by attitudes, normative beliefs and control beliefs (Ajzen, 1991). These are operationalized in the present study with entrepreneurial attitudes, culture (individualism) and internality of locus of control respectively. Results presented in this manuscript show support for the hypothesized model. That is, individualism and internality of locus of control impact self-employment intentions via entrepreneurial attitudes. However, the association between attitudes and intention is further conditioned by culture. This suggests that there are avenues for extension of TPB in its application to study of entrepreneurial behavior. It has already been suggested that control beliefs could moderate intention implementation process (Ajzen, 2002). The present study suggest that entrepreneurial attitudes could be strengthened by both normative and control beliefs, yet translating attitudes into firm intentions could be conditioned by normative beliefs.

Concerning the impact of normative beliefs (in terms of individualistic culture), the study reveals contradictory findings, which are however important for clarifying the role of culture in the development of self-employment intention. Entrepreneurial culture is said to espouse individualistic values rather than collective values (e.g. Baughn & Neupert, 2003; Schlaegel, He, & Engle, 2013; Tiessen, 1997). However, in our study, entrepreneurial attitudes and self-employment intentions were higher in East Africa and lower in Germany, which are lower and higher respectively on individualism (Hofstede, Hofstede, & Minkov, 2010). This could be attributed to the context of unemployment in East Africa on one hand, and the high ambiguity intolerance in Germany on the other hand. Hence the idea that the impact of individualism on entrepreneurial activities could be affected by social context (Liñán, Moriano, & Jaén, 2016). Despite this contradiction, an important observation is that the association between entrepreneurial attitudes and self-employment intention is moderated by individualism; such that the association is stronger for Germany than East Africa. Although a concrete conclusion cannot be drawn given the cross sectional nature of the study; the results provide an insight that individualistic values are important in translating strong entrepreneurial attitude into firm self-employment intention.

The discussion of the association between culture, cognitive attributes, and self-employment intention is furthered in Manuscript #3 using a sample of unemployed young people in East Africa. However, focus is on personal cultural values relating to independence

and risk aversion. These are personal culture measures derived from Hofstede model on the assumption that within a given national culture, there are extensive variations among individuals (Sharma, 2010). In addition, a couple of cognitive constructs: cognitive style and moral potency are introduced to the study of self-employment intentions. Similar to findings in Manuscript #4, it is observed that independence orientation (which is the operationalization of individualism at personal level) does not substantially affect self-employment intentions, at least among the unemployed in East Africa. Surprisingly risk aversion also had insignificant negative effect on self-employment intention.

Moral potency, can too be interpreted in terms of personal values (ethical values), which to some degree go hand in hand with cultural values. Hence, it is not surprising that the results further show that moral potency is not significantly associated with entrepreneurial intention. These findings, considering that the sample consists of unemployed people, further confirm the assumption that the connection between cultural values and entrepreneurship is context specific (Liñán, Moriano, & Jaén, 2016). It is therefore probable that for unemployed individuals, willingness to engage in business activities may not cardinally depend on one's cultural or moral values, but the desire to get out of unemployment. This reinforces the push theories, that individuals in certain economic contexts are pushed into self-employment (Abada, Canada, & Lu, 2014; Falter, 2005; Granger, Stanwort, & Stanworth, 1995). In situations where it is hard to get employment, self-employment becomes a realistic alternative even when it is incongruent to one's cultural and/ or moral values. Previous research suggested that there are self-employed individuals who never preferred self-employment, but rather became self-employed because of economic hardships; or led into self-employment by significant others (Dana, 1996), for example becoming self-employed by inheriting family business and not because one is attracted to self-employment. This could also explain why most self-employed people in less developed countries do not succeed and persist because self-employment is a realistic but not the ideal career path for those who are pushed into it by economic hardships such as unemployment.

The variation in self-employment intention of unemployed young people in this study was mostly accounted for by differences in cognitive styles and their interaction with cultural orientations and moral potency; justifying the supposition that cognition research has potential to provide answers to several unanswered questions about entrepreneurs and the entrepreneurial process (Mitchell et al., 2007). The results particularly suggest that for the unemployed, an adoptive cognitive style is what is required to enable individuals develop self-employment intention. Entrepreneurship is often associated with intuitive cognitive style

(Armstrong & Hird, 2009; Nandram, 2016; Sadler-Smith, 2015) which is useful in recognizing opportunities and taking decisions to exploit those opportunities. However, in the context of unemployment, it might not be the ability to recognize opportunities or whether business is compatible to one's ideals that matters most. Rather, the need to get out of unemployment, and the ability to recognize that self-employment offers the fastest and surest opportunity to get employed. Therefore, unemployed individuals who mix intuition with analysis are likely to have higher self-employment intention because they have both the ability to recognize opportunities and also assess feasibility of those opportunities in comparison to the likelihood of remaining unemployed longer. Another important result of the study is that individuals who are intuitive and high in risk aversion tend to have almost no intention to go into self-employment. On the other hand, individuals who are high on intuition and with high moral potency have strong intentions to become self-employed, suggesting that self-employment is viewed as an opportunity to make noble contributions to society (Dana, 1996); and therefore morally good than remaining unemployed. However, congruent to the assumption that adaptability in cognition improves performance in entrepreneurial tasks (Haynie, Shepherd, & Patzelt, 2012; Haynie, Shepherd, Mosakowski, & Earley, 2010), self-employment intentions of unemployed individuals who use adaptive cognitive style are not affected by risk aversion and moral potency.

### **The Interactive effect of Entrepreneurial Socialization and Cognitive Resources on Self-Employment Intentions and Entry**

The third research question stated "What psychological attributes are necessary for the effectiveness of entrepreneurial mentoring in leading to higher self-employment intentions and entry?" Manuscripts #5 and #6 are specifically dedicated to answering this question. Manuscript #5 employs self-determination theory to discuss what motivates individuals of different employment statuses (students, unemployed, and salary-employed) into entrepreneurship; while Manuscript # 6 is grounded on TPB to discuss development of entrepreneurial intentions and the movement from intentions to actual entry among university students. In research question one, the role of socialization was investigated with how professional training (course and duration of study), and its interaction with protean attributes affect entrepreneurial intentions. Under research question two, the role of socialization is measured with personal cultural values and national cultural dimensions. In this section, socialization process is operationalized by entrepreneurial mentoring. In addition, cross-

cultural differences are also examined. Building on the foregoing discussion of role of entrepreneurial socialization through culture and training, both Manuscripts #5 and #6 confirm the positive association between mentoring and entrepreneurial intentions.

Entrepreneurial mentoring and/ or education have increasingly been adopted in most countries as a strategy for enhancing entrepreneurship development. The assumption is that mentoring improves entrepreneurial attitudes and competences hence increasing intentions and creation of new businesses (Bosma, Hessels, Schutjens, Praag, & Verheul, 2012; Liñán, 2008; Starr & Fondas, 1992; Xiao & North, 2016). It is specifically noted that entrepreneurial learning enables individuals to gain cognitive, learning and practical skills that improve the competence to recognize opportunities, to take decisions, as well as enhanced identity in the entrepreneurship profession (Lafuente & Vaillant, 2013; St-Jean & Audet, 2012; St-Jean & Tremblay, 2011). These skills enhance one's efficacy to succeed in business, therefore not only leading to positive attitudes and intention, but also high likelihood that they translate into startup behavior.

However, assuming that entrepreneurial mentoring or learning always results into strengthened intentions and therefore likely to lead to self-employment entry could be simplistic and misleading. A key question specifically for practice is what should be the focus of entrepreneurial mentoring programs and activities? Results in both manuscripts are consistent in demonstrating that the impact of mentoring on entrepreneurial intention is stronger in Germany than in East Africa, despite entrepreneurial intentions being generally substantially stronger in East Africa, and particularly in Uganda. A number of reasons could be advanced, for example, Uganda is among the countries with highest youth entrepreneurship potential on the globe (Balunywa et al., 2013; Singer, Amorós, & Moska, 2015) and unemployment; which attract and force individuals into self-employment respectively. Hence, individuals are almost always willing to go into entrepreneurial activities, with no or little mentoring. Because of already pre-existing strong entrepreneurial intention, mentoring has limited opportunity to make impact on entrepreneurial intentions of young people in Uganda. This still leads to the same question; what should then be the target of entrepreneurial mentoring to increase startups in this region?

Differences in economic development between Germany and East African countries suggests that young individuals in Germany have the better opportunities to access quality mentoring. In addition, those who have willingness to go into business are likely to have easier access to startup resources. These could contribute to the strong association between mentoring and entrepreneurial intention in Germany. It is also possible that given relatively

low unemployment rates in Germany, implying higher availability of job openings, only those with firm intentions to go into business seek entrepreneurial mentoring. However, the most important answer, relevant for practice concerns the influence of autonomy. Germany being a largely individualistic country (Hofstede & Minkov, 2010) implies that people have higher level of independence. On the other hand, East African countries are highly collectivistic. These have implications for decision making (LeFebvre & Franke, 2013). Individuals in individualistic societies can easily convert the skills and knowledge gained through entrepreneurial training into firm intentions because they are fully in charge of their career decision. On the other hand, individuals in collectivistic societies tend to rely on significant others in making career decisions, consequently affecting the ability to convert entrepreneurial mentoring into firm intentions to create one's own business. Consequently, in line with van Gelderen's (2010) call that entrepreneurial training should focus on enhancing autonomy, the findings in Manuscripts #5 and #6 indicate that autonomy is essential for the association between mentoring and entrepreneurial intentions. Therefore, mentoring in East Africa could focus on enhancing the capacity of prospecting entrepreneurs to take independent decisions. However, there should also be consideration for variations between different employment status groups. Individuals already in salaried-employment show low interest in entrepreneurship, even with access to entrepreneurial mentoring (cf. Manuscript #5). Therefore, for this group, mentoring could focus on enhancing intrapreneurship capability. This may in the future increase their willingness to go into self-employment, given that innovative employees tend to leave salaried employment to found their own organizations, especially if the organizational environment is not favorable for innovations (Lee, Wong, Foo, & Leung, 2011).

Besides autonomy, psychological capital is another cognitive resources that is important for entrepreneurship that has been found to be essential to the wellbeing and success of entrepreneurs (Baluku, et al. 2016b; Baron, et al. 2016). Self-efficacy, an aspects of psychological capital, is also a component of control beliefs (Ajzen, 2002), which in the TPB is an antecedent of behavioral intention. Findings in Manuscript #6 highlight the relevance of psychological capital in the connection between entrepreneurial attitudes and intentions as well as association of mentoring with entrepreneurial intention. Regarding cognitive skills therefore, entrepreneurial mentoring should therefore in addition to strengthening autonomous decision making should also aim at strengthening psychological resources. Each of the resources that comprise psychological capital could be essential, not only in the formation of entrepreneurial intentions, but also in the process of implementing

the intentions. As already outlined, self-efficacy contributes to control perceptions which is critical for development of intention and for the intention – behavior link (Ajzen, 2002). Optimism contributes to ability to recognize opportunities (Ardichvili, Cardozo, & Ray, 2003; Baron & Ensley, 2006). It could also help in perception of barriers and lowering fear of failure. Hope also contributes in formulating goals and strategies. Yet resilience could also be useful particularly in persistence of intentions and persisting in implementation of intentions. However, these may require further empirical investigations. Importantly, although these resources are described as trait-like and state-like, they can be improved through specific learning programs (Luthans & Youssef-Morgan, 2017). Hence mentoring has the potential to improve these cognitive resources of prospective entrepreneurs, thereby enhancing the impact of mentoring on intentions and startup behavior.

On the contrary, psychological capital had limited impact on likelihoods of being self-employed after graduating from university (Manuscript #6). Nonetheless, besides the challenge of small sample used to examine the relationship between entrepreneurial intentions and self-employment entry after graduation, each aspect of psychological capital could have a unique contribution, hence requiring investigating each aspect individually. Instead, the impact of access to financial resources and continuous mentoring are underlined. Stopping accessing entrepreneurial learning opportunities once one has strong attitudes and intentions may therefore be detrimental to transforming intentions into actual behavior. Hence the call for continuous entrepreneurial mentoring (Barrett, 2006). Moreover, entrepreneurial mentoring at this stage could be useful to enabling prospecting entrepreneurs to overcome financing huddles, and related challenges that impede implementation of intentions.

### **Explaining Success and Commitment to Remain Self-Employed**

The forth research questions stated “what personal attributes and socialization factors are critical for the realization of different entrepreneurial outcomes?” In terms of career development, self-employment is attractive if it offers higher chances of career success. Which also implies that if self-employed individuals are able to achieve their career goals, they will likely commit to a career in self-employment. Similarly, self-employment or entrepreneurship can only be good for economies if the created ventures are successful. The last three manuscripts presented in this dissertation address this question. Manuscript #7 shows that personal cultural values (interdependence and social inequality) and cross-cultural

competence (cultural intelligence) are essential for success particularly in collective and ethnically diverse communities. Results of Manuscript #8 show that entrepreneurial mindset involving psychological capital and autonomy plays critical role in achievement of objective and subjective success. Moreover, this mindset, is substantially associated with willingness to remain self-employed (Manuscript #9).

The socialization factor that the dissertation highlights as essential for success in self-employment is personal cultural values. However, the importance of national cultures cannot be ignored. Contrary to the idea that entrepreneurship flourishes in communities that are individualistic and low on power distance (Mueller & Thomas, 2001; Suddle, Beugelsdijk, & Wennekers, 2010; Tlaiss, 2014), results presented in Manuscript #7 indicate that in collectivistic communities, interdependence and social inequality orientations have valuable effects on success in self-employment. This contradiction suggests that the impact of personal cultural values on business success are context specific. The importance of collectivistic values on entrepreneurship are also highlighted and further confirmed in previous affirmations that collectivism is not completely bad for entrepreneurship (e.g. Tung, Walls, & Frese, 2007). Interdependence values are useful in creating and maintaining useful ties which enables leveraging resources (Tiessen, 1997). Besides, interdependence values and appreciation of social inequalities further enable entrepreneurs to interact with other individuals in friendlier way, thus contributing to both social and interactional capitals of a business. These cultural values strengthen one's social competences, which have been used in previous studies to differentiate between successful and less successful entrepreneurs (Baron & Markman, 2000, 2003). This justifies why interdependence and social inequality personal cultural orientations affected subjective success via behavioral cultural intelligence. The ability to interact with people who are different ethnically and social-economically enables entrepreneurs to attract and maintain a diverse clientele, which not only is important for economic success measures, but also contributes to entrepreneurs' satisfaction.

Concerning the personal attributes, it was established that a positive mind set (conceptualized as consisting of positive psychological capital and autonomy) enables entrepreneurs to achieve both subjective and objective success (Manuscript #8 and #9). Generally, psychological capital involves positive personal resources that enable individuals to succeed in different aspects of life (Baron, et al. 2016). It facilitates both performance and persistence in tasks (Luthans, 2002; Luthans, Luthans, & Luthans, 2004). Regarding the different aspects of success, the present study replicates findings of Baron, et al. (2016) that psychological capital is strongly associated with high psychological wellbeing among

entrepreneurs. The present study particularly reveals that entrepreneurs with high psychological capital not only have higher level of job satisfaction but also higher meaning in life. Moreover, the positive impact of psychological capital on entrepreneurs' job satisfaction is confirmed in both Germany and Uganda. It enables entrepreneurs to cope to the complexity of the entrepreneurial roles, to maintain a positive work attitude and to resist stress associated to entrepreneurial challenges such as risk, losses, and long work days (Baron, et al. 2016).

Each psychological resource that is encompassed in psychological capital has a specific contribution to general entrepreneurial success (Baluku, Kikooma, & Kibanja, 2016b). In this dissertation, the association of optimism and self-efficacy beliefs with specific aspects of entrepreneurial success are investigated among Ugandan owner managers of micro and small businesses (Manuscript #8). Despite the small number of participants, the study found that these resources account for considerably high variances in both objective success indicators (entrepreneurial performance and firm growth) and subjective indicators (entrepreneurs' job satisfaction). Based on the idea of resource caravans (Hobfoll, 2002, 2011), it is suggested that psychological resources, especially those comprising psychological capital (Luthans & Youssef-Morgan, 2017) tend to move and work together. Results in Manuscript #8 specifically confirm that the effects of optimism on all objective and subjective indicators of success were mediated by self-efficacy beliefs. It is therefore possible that these psychological resources work together in complex ways to increase likelihoods of succeeding and persisting in entrepreneurial tasks.

Autonomy is one of the major features that attract individuals to self-employment (Rindova, Barry, & Ketchen, 2009; van Gelderen & Jansen, 2006; Zhang & Schøtt, 2017). Self-employment provides a unique opportunity to be one's own boss, thus independence in most aspects of work. Therefore, autonomy should be one of the greatest subjective outcomes of self-employment. An important contribution of the study however regards the finding that autonomy is also essential for other indicators of subjective success. Self-employed individuals with higher autonomy reported higher job satisfaction and meaning in life. It is also argued that it is the reason self-employed are happier (Benz & Frey, 2008; Binder & Coad, 2013; Schneck, 2014). However, its effect on objective success, notably on financial outcomes, are only marginal. Nonetheless, this requires further investigation and replication given that this aspect of success was only investigated among a small sample of self-employed individuals in Germany. The role of autonomy in objective success could be dependent on a number of contextual factors including type of self-employment (solo or employer or family business) and size of business.

The research also sheds light on psychological attributes that contribute to an individuals' willingness to remain in self-employment. Individuals go into self-employment for various reasons. Attaining those goals should motivate individuals to persist in self-employment. However, given the stress and challenges involved in entrepreneurial roles, psychological resources play a significant role. The self-determination theory (Deci et al., 2001; Gagné & Deci, 2005; Ryan & Deci, 2000) posits that desire to satisfy basic psychological needs including autonomy, competence, and relatedness facilitates intrinsic motivation to engage in behavior. Therefore, satisfaction of these needs, especially autonomy and competence should be associated with persistence. Accordingly, results in Manuscripts #8 and #9 confirm these assumptions. Overall, the study found that aspects of eudemonic wellbeing including these psychological needs and meaning in life were strongly associated to commitment to self-employment career path. Moreover, there seems to be no cross-cultural variations in these relationships. In addition, self-employed individuals with higher scores on these variables reported stronger commitment to their career path than their counterparts in salaried employment (Manuscript #9).

Similar to contributions of satisfaction of psychological needs, the study reveals strong correlations between psychological capital and commitment to self-employment career (Manuscript #8). Again, it is likely that each resource plays a different role, although psychological capital was investigated as a general construct. Individuals who have high confidence and feel competent to execute entrepreneurial tasks should be more willing to persist. In addition, optimism has been found to be useful to entrepreneurs in managing transition periods (Morton, Stephern; Mergler, Amanda; Boman, Morton, Mergler, & Boman, 2014) and also refers to maintaining positive expectations (Luthans, Luthans, & Luthans, 2004) even when such expectations are less justifiable (Hmieleski & Baron, 2009). Consequently, individuals with these resources are more likely to persist in self-employment, even when venture performance is low. Psychological resources of hope and resilience could even be more important in enhancing commitment to self-employment. Hope enables individuals to persist in pursuit of goals, and is the resource that people use to re-define goals and developing alternative strategies for achieving them (Luthans, Luthans, & Luthans, 2004; Snyder, 2002). Ability to redefine goals and change strategies are essential to performance and persistence of a business venture. Finally, resiliency, which refers to ability to resist challenges and bounce back from adversity (Luthans, 2006) implies that entrepreneurs with this resource are able to cope and overcome stressing periods in business (Baron, et al., 2016). The study shows that all these resources, put together as psychological capital, could

be contributors to one's commitment to a career that is conceived to be risky and stressing. However, the contributions of each resource require independent empirical investigations. Overall, Manuscripts #8 and #9 confirm that a positive mindset comprising of high psychological capital and autonomy make extraordinary contribution to success and commitment to self-employment.

### **Theoretical and Practical Implications**

Put together, all the papers constituting this dissertation present robust findings that make significant contribution to theory and implications for practice. First, the study broadens the application of culture to entrepreneurship research. Entrepreneurial culture research has often been studied with national culture framework (Franke, Hofstede, & Bond, 1991; Hofstede, Hofstede, & Minkov, 2010). Whereas this framework has facilitated tremendous progress in understanding cultural contexts in which entrepreneurship thrives, it also has a number of weakness. Particularly, the taxonomy is criticized for overlaps in dimensions; in addition to ignoring the wide variations and growing cultural diversity within societies (Schwartz, 1994; Sharma, 2010; Tiessen, 1997). The studies presented in this dissertation indicate that entrepreneurial culture should be defined in terms of both national cultural dimensions and personal cultural values. They both have the potential to encourage or discourage an individual from entrepreneurial activity and facilitate or limit abilities to succeed. However, the results presented in the different manuscripts also indicate that the role personal cultural values in entrepreneurship tend to follow the dominant national culture. For example, individuals higher on interdependence are more likely to be successful in self-employment in collectivistic rather than in individualistic communities. On the overall, individuals who hold a balanced cultural view or who are adaptive could have an advantage in entrepreneurship. Thus, employing independence values when required, and employing collective values when the situation necessitates.

Relatedly, entrepreneurial culture has been defined in terms of specific cultural dimensions. For example, literature suggest that entrepreneurial activities and growth are more likely in individualistic, masculine, ambiguity tolerant societies, and those with low power distance (Hamilton, 2013; Mueller & Thomas, 2001; Wennekers, Thurik, Van Stel, & Noorderhaven, 2010). Whereas this proposition is true to some extent, cultural dimensions that are considered less entrepreneurial are not totally detrimental to entrepreneurship. They too do facilitate certain aspects of the entrepreneurial process. For example, collectivism (at

national level) or interdependence (as a personal value) enable individuals to build useful networks for social capital, therefore important in financing and implementing entrepreneurial activities (Tung et al., 2007). Understanding of how each cultural dimension affects entrepreneurship at group and individual level should also consider contextual issues. For example in highly masculine cultures, women might struggle to make successful careers in business, since women in such communities tend to have lowered entrepreneurial efficacy (Sweida & Reichard, 2013). However, the studies presented in this dissertation indicate that in societies with such inequalities, entrepreneurship is increasingly considered by the marginalized as an opportunity to make successful career and bridge the social, economic, and power inequalities.

One of the contributions of the so-called less entrepreneurial cultural dimensions such as collectivism, feminism, and power inequality is that they sensitize individuals to social interactions, hence important for development of social competences. Beyond social capital, the role of social skills have been found to make substantial contribution to entrepreneurial success (Baron & Markman, 2000; 2003). Particularly, such competences are important for establishing relational capital (e.g. relations with customers and suppliers). The present study (Manuscript #7) reveal that interdependence and social inequality personal cultural orientations affect success in self-employment via behavioral cultural intelligence in multiethnic societies. Being socialized to appreciate social differences and interpersonal reliance enables individuals to develop competence to interact effectively with individuals from different groups and cultures. In business, this presents a competence to attract and retain suppliers and customers from different ethnicities and cultures.

Beyond demonstrating the value of certain cultural dimensions, the study re-emphasizes the value of social competences in entrepreneurial success. There are newer concepts of cognitively related competences that are important for social behavior, for example emotional, cultural and moral intelligences. These are increasingly applied to management and organizational theory and practice with great results (e.g. Ang et al., 2007; Greenidge, Devonish, & Alleyne, 2014; Lennick & Kiel, 2011; Lin, Chen, & Song, 2012). However, these concepts are not yet popular in entrepreneurship literature. Moreover, they could be useful in understanding behavior of entrepreneurs in different contexts, such as in business related conflicts and in situations of ethical dilemmas. The present study has investigated the role of moral and cultural intelligence and demonstrated that they are important in explaining self-employment intentions and success. However, these findings require replication to popularize these concepts in entrepreneurship research and practice.

Findings of the different manuscripts particularly contribute to three long standing debates. Who becomes an entrepreneur and why (Hmieleski & Corbett, 2006; Levine & Rubinstein, 2017; Walter & Heinrichs, 2015); who is likely to succeed in entrepreneurship and why (Harada, 2003; Maccoby, 2007) And why do people persist in self-employment (Patel & Thatcher, 2014). The manuscripts presented in this dissertation indicate that socialization process and psychological attributes partly answer these questions. That is, individuals become entrepreneurs because of the psychological predisposition and learning that occurs both formally and informally. However, the economic context provides the push that hastens the urgency of entry. Therefore, individual's intention to start businesses and actual startup cannot entirely be explained using one perspective. A mixture of approaches is needed to provide comprehensive answers to questions relating to self-employment process.

Regarding intentions and entry, the first six manuscripts confirm the idea that there are self-selection and environmental selection mechanism into self-employment (Baron, et al., 2016). Attributes that characterize who a person is, such as personality and cognition, provide a basis for one's interest in entrepreneurial activities. Beyond interest, these attributes are related to competences that facilitate startup behaviors such as opportunity recognition, seeking and developing networks to support implementation of business ideas. The intentions and actual entry of such individuals into business are strengthened and fastened if there are additional push factors, such as unemployment, that makes it more urgent to start an enterprise; and when there exists supportive cultural environment and entrepreneurship learning opportunities. However, concerning success and persistence, the importance of specific psychological attributes particularly those that relate to developing and maintain or that constitute a positive mindset are emphasized. This is essential for effectiveness of entrepreneurship development programs, particularly in selecting and supporting beneficiaries.

Two specific attributes, psychological capital and autonomy, stand out as having exceptional contribution to development of self-employment intention, in achieving success, and in committing to a career in self-employment. Hence the studies presented here provide support to the existing limited evidence that psychological capital is important for success and wellbeing of entrepreneurs (Baron et al., 2016); and that autonomy as well as other facets of psychological wellbeing are essential in motivating an individual to persist in self-employment (Patel & Thatcher, 2014). Besides replication of these earlier findings, the present studies indicate that these two attributes contribute significantly at every stage of the self-employment process, from development of intention to persistence or commitment. The

results of the present studies further demonstrate that mentoring, and generally socialization processes play salient roles in the entrepreneurial process. Moreover, these two psychological attributes can be enhanced through specific interventions. Therefore, entrepreneurial training and education agenda should particularly incorporate them, as well as other important psychological attributes such as adaptability in cognitive styles and developing social or interactional competences.

Finally, commitment to self-employment is necessary for individuals and countries to achieve the long-term benefits of engaging in entrepreneurial activities. Most economic benefits of entrepreneurship accrue in the long-term (Kritikos, 2014). Therefore, nascent entrepreneurs should be able to build on the small gains to strengthen their resilience and persistence in business at the challenging start-up stage. Manuscripts #8 and # 9 demonstrate that among nascent and micro-entrepreneurs, psychological success (including wellbeing and satisfaction) are important for individuals to commit to self-employment. It has been argued that experiences at the earlier stages of the enterprise determine how individuals feel about their ventures and thus antecedent for their wellbeing and whether to persist or exit (Baron, Franklin, & Hmieleski, 2016; Burton, Sørensen, & Dobrev, 2016). Therefore, in addition to building positive psychological, social, and relational capitals; nascent entrepreneurs need to be supported to recognize the small subjective and objective wins that enable them appreciate the progress of their ventures. All these are necessary for persistence in self-employment and for growing micro businesses in big ventures.

### **Limitations and Directions for Future Research**

Despite the above theoretical and practical implications, the studies presented in this dissertation are not without limitations. First, all the studies used self-report measures. Thus the risk of social desirability biases (Miller, 2012) cannot be ruled out. Therefore, there are possibilities of inflated associations between the various concepts. This calls for caution in application of the findings. Future studies should apply predominantly objective measures, specifically in assessing entrepreneurial outcomes. This is further discussed in the issue relating to measuring success in self-employment.

A related limitation is that most manuscripts use findings based on single surveys that were cross-sectional in nature. This is associated with common-method bias, which has been observed to usually account for wide variances in research results (Doty & Glick, 1998). However, it is also suggested that common methods variance does not pose great danger to

validity of findings in studies using multiple item measures with substantial reliabilities (Fuller, Simmering, Atinc, Atinc, & Babin, 2016). The study adopted widely used measures with great psychometric properties, moreover observed reliabilities ranged from acceptable to very high. In addition, in one study, a longitudinal approach was applied. In other studies, robust data from different countries and groups are used. Therefore, it appears that common methods did not have gross confounding effects in these studies. Besides, complex analytical models such as moderations and mediations, which are widely applied in the manuscripts, are less likely to be affected by common methods bias (Evans, 1985). Therefore, the results presented in various manuscripts can be applied with some level of confidence. Nonetheless, future studies could benefit from more elaborate experimental, longitudinal, and mixed methods designs.

Success involves both objective and subjective measures. The dissertation predominantly focuses on subjective measures. In career terms, subjective success are very crucial in the present era of protean careers (Hall, 2002). However, in business and economic terms, verifiable objective parameters are important to understanding whether businesses are succeeding or failing. Although some manuscripts incorporate objective measures including income, entrepreneurial performance and venture growth; these were still assessed using self-reports without applying verifiable information. Future research should therefore expand on more financial and economic indicators of success; given that these might be more important for national economic interests in entrepreneurship. Particularly, objectively verifiable data needs to be analyzed. Despite these measurement challenges, the results still provide essential insights of how objective and subjective success are attained in self-employment and how they contribute to one's willingness to remain self-employed.

An additional limitation regards the assessment for entrepreneurial mentoring. In the measure of mentoring, access to entrepreneurial education, role modeling, counseling, and information were assessed. However, mentoring involves more than these aspects (St-Jean, 2012). Therefore, there is need to develop a more comprehensive tool for measuring entrepreneurial mentoring. In addition, each of these aspects is likely to have a unique role in the entrepreneurial process. Hence, further studies should consider facet-level analysis. The present studies have demonstrated the role of mentoring in development of intentions and entry. However, it's role in persistence and success was not analyzed. Yet it is posited that nascent entrepreneurs require mentoring at all stages of the entrepreneurial process (Barrett, 2006). Moreover, there is also limited empirical studies examining the connection between entrepreneurial mentoring and particularly subjective outcomes of self-employment.

Therefore, examining how mentoring improves the psychological wellbeing, satisfaction, commitment or persistence in self-employment could be useful for entrepreneurship practice and theory.

The present study has discussed the contribution of both personal and national cultural values. Looking at both perspectives, and discussing how the two perspectives interact makes important contribution to theorizing about entrepreneurial culture, and important for entrepreneurship intervention programs. However, the studies were confined to a few countries. For a wider application of such findings, it is required that the results are replicated in several countries. In addition, the studies presented in this dissertation, in line with some of previous studies such as (Tung, Walls, & Frese, 2007), show that every cultural dimension has positive aspects that can be used for promoting entrepreneurial growth in a given community. For example, individualism is good for innovation while collectivism aids in implementation of innovations (Taylor & Wilson, 2012; Tung et al., 2007). Scholars could therefore gear some efforts to identifying positive aspects of every culture, including those cultures considered unfavorable to entrepreneurship, that can be used as basis for entrepreneurship promotion. Moreover, entrepreneurs can be supported to become flexible, that is adopting positive competences and behaviors from different cultural dimensions that increase the entrepreneur's soft skills.

In relation to soft skills, a number of relational competences are paramount in enabling individuals successfully execute several entrepreneurial tasks. Whereas entrepreneurship is mostly driven by business goals such as maximizing sales and profits, achieving these goals requires interactions with several stakeholders. Overall, business occurs in a social setting and therefore entrepreneurs should be able to exhibit appropriate social skills. Accordingly, these contribute substantially to entrepreneurial success (Baron & Markman, 2003). Different social skills contribute to entrepreneurs' social and relational capital. These are crucial in creating and maintaining networks, harnessing resources to fund innovations, attracting and maintaining customers and suppliers, as well as leading a business team. The present study has demonstrated the value of culturally related social skills, such as behavioral cultural intelligence, to achieving subjective success. Future research should scale up both conceptual and geographical scope. The present study focused on application of the concept in a multiethnic setting. This requires replication in different countries. However, the study has demonstrated that like in cross-cultural business, cultural intelligence is a required competence in doing business in ethnically diverse communities. There are similar concepts that relate to behavior in social settings such as emotional intelligence. Such concepts could

be important to behavior of entrepreneurs, thus also essential for business success.

Additionally, measuring their contribution to objective success is necessary.

Entrepreneurial success accrues from investing various resources into the business. This includes tangible and intangible resources. Of the intangible resources, attention is often paid to human capital (cf. Martin, McNally, & Kay, 2013; Unger, Rauch, Frese, & Rosenbusch, 2011) and social capital (Kim & Aldrich, 2005). However, among intangible resources are cognitive resources which contribute to successful entrepreneurship (Baron, 2004; 2000). Some of these resources have been found to operate together and therefore amalgamated into one construct of psychological capital (Luthans et al., 2004). However, the construct has so far received limited application in entrepreneurship research. Nonetheless, extant literature demonstrates that psychological capital is an important input that is related to entrepreneurial intention (Contreras, Dreu, & Espinosa, 2017), business leadership (Jensen & Luthans, 2006) as well as objective and subjective business outcomes (Baluku, et al., 2016; Baron, et al., 2016; Hmieleski & Carr, 2008). The manuscripts presented in this study also indicate that psychological capital is fundamental at different stages of the self-employment process. However, focus was given to the total construct and not its facets. Attempts in one study to focus on two of the facets indicated that the resources could work together in complex ways. Nonetheless, it seems that each resource could have unique contributions at specific phases of the self-employment process. Further research should consider examining those unique contributions of each facet at different stages of the venture creation and growth, well as how they interact or mediate the effects of each other in the entrepreneurial process. This would be beneficial for entrepreneurial support programs.

Finally, an important phase of the entrepreneurial process is persistence. If individuals cannot persist, they exit (Reynolds, Carter, Gartner, & Greene, 2004). Exit may imply that individuals have failed to succeed in the self-employment career. Therefore, not good for career development. Entrepreneurial exits are also not good for economic development. On the other hand, persistence enables businesses to survive longer increasing likelihoods of achieving long term goals, which could be more important than the short term gains. Therefore, this is a research area that requires more attention. Unfortunately, scholars seem to pay more attention to exit than to persistence. Persistence was given attention in Manuscript # 8 and #9. However, it was measured subjectively using career commitment measures. One other study using panel data focused on length of time spent in self-employment and time lag between exit and re-entry (Patel & Thatcher, 2014). However, such measures also suffer a number of challenges such as accuracy in reporting employment transitions. These challenges

present a need for developing an objective measure for assessing persistence in entrepreneurial activities.

## **Conclusion**

This dissertation and the manuscripts presented herein provide an extensive discourse of the role of a wide range of psychological attributes and entrepreneurial socialization, and their interaction, in the self-employment process. The studies provide important insights into the mechanisms that enable some people to become self-employed or entrepreneurs, and flourish in this complex, risky, and stressful career role. In general, psychological attributes including protean-related personality traits and attitudes and cognitive resources related to positive mindsets are important for developing entrepreneurial mindset and competences, which translate into strong intention and startup behavior. These too are critical for success and persistence in self-employment. However, entrepreneurial socialization through culture and training enable individuals to apply their psychological predispositions to go into and succeed in an entrepreneurial career.

To demonstrate the power that individuals have to recognize the potential in entrepreneurial career, to go for it and succeed, I conclude with a number of thoughts from famous entrepreneurs and thinkers. The drive to make a career in self-employment is largely generated from within the individual, not only the desire to be one's boss but to fulfill one's dreams; "if you don't build your dream, someone will hire you to build theirs" (Tony Gaskins). However, individuals capable of doing that are unique in their psychological anatomy. Hence "entrepreneurship is the last refuge of the trouble-making individual" (Natalie Clifford Barney). Moreover, they are not afraid to start working towards achieving their dreams despite the challenges ahead "I knew that if I failed I wouldn't regret that, but I knew the one thing I might regret is not trying" (Jeff Bezos, Founder of Amazon). However, those who do not possess such qualities can be inspired to gain interest and to succeed in this career. When the environment is not supportive, individuals determined to succeed in this career path always find a way to move forward with their dreams. "Think big and don't listen to people who tell you it can't be done. Life's too short to think small" (Tim Ferriss). Therefore, individuals require supportive environment that nurtures, rather than discourages their entrepreneurial dreams. The present study shows that this can be achieved through mentoring and culture. Once one is started, persistence in self-employment and seeking success becomes a great challenge. Persistence is particularly important to achieve the long-

term dreams, but requires effort. “If you are to succeed you need to have what Paul Graham calls The Cockroach Mentality, where no matter what you never die and keep on fighting until the end” (Karbassiyoon, A startup owner and former Arsenal player, in an interview with Goal.com). The outcomes of this risky complex career role are worth the trouble, both for young individuals and the economy. Entrepreneurial Growth and success has the potential to transform individuals, economies and the world.

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## **Appendices**

- Manuscripts #1 - #9
- Curriculum vitae
- Erklärung der Verfasserin

**Manuscript #1**

**Career Mobility in Young Professionals: How a Protean Career Personality and Attitude Shapes International Mobility and Entrepreneurial Intentions**

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### Abstract

**Purpose:** The purpose of this study is to propose that protean-related traits and attitudes play a significant role in the development of international mobility (expatriation) and entrepreneurial intentions among college students and young graduates. Career mobility is an increasingly important path to career success. Particularly in the globalized work environment and dynamic labor market, geographical mobility and entrepreneurship provide great options for fast transition from school to work and building one's career.

**Design/ Methodology/ Approach:** This paper reports two studies examining the role of "protean career personality", conceptualized as consisting of personal initiative and flexibility, and career orientation attitude on entrepreneurial and expatriation intention. In Study 1, the impact of personal initiative and flexibility on the two career mobility paths is explored using a sample of 443 German university students. Study 2 replicates these relationships among a sample of 100 psychology alumni of a German university.

**Findings:** Results indicate that for the students, personal initiative and career orientation are essential for entrepreneurial intentions, while flexibility is essential for expatriation intention. For the graduates, only flexibility is resourceful regarding willingness to expatriate or to go into business.

**Practical implications:** Suggestions for supporting students and young graduates to develop interest in working abroad or going into business are provided. Particularly, the results indicate that strong career orientation is important for readiness for career mobility behaviors among young professions. To enhance readiness for international mobility among students and young graduates, efforts should be geared towards increasing potential for flexibility. On the other hand, enhancing proactivity could strengthen entrepreneurial intention among students.

**Originality/ Value:** This study is unique in assessing whether different forms of career mobility among different groups are determined by similar antecedents. Differentiating determinants for different mobility behaviors is important for career guidance. The study is also among the few that link mobility behaviors to protean-related personal attributes.

**Keywords:**

Career mobility; career orientation; entrepreneurial intentions; expatriation; flexibility; international mobility; personal initiative; protean career

## Introduction

Flexibility has been emphasized in recent research as important attribute that fosters career development and success (Arthur, 2014; Hamtiaux, Houssemand, & Vrignaud, 2013; Lent & Brown, 2013). Sticking to one's learned trade is no longer fashionable since career paths have become less systematic (Arnold, 2001; Baruch, 2004). It is conceived that career paths have become nonlinear and discontinuous, and with more forces coming into play in labor market and career development, individuals are now required to take more control of their career development (Sullivan, 1999; Sullivan & Baruch, 2009). The labor market today is grossly affected by technological advancement and globalization (Lent & Brown, 2013). These and other economic factors have made employment more precarious. Consequently, those nearing graduation from school face the challenges of prolonged and uncertain school-to-work transition periods. While the newly graduated have to compete for the few existing job openings, moreover competing with highly trained and experienced individuals since many employers still pay attention to human capital (Hatch and Dyer, 2016); yet seeking human capital that fits with the complex firm structure (Ployhart et al., 2014) that is increasingly technology-driven. This limits employment opportunities available to new graduates, hence a protean approach could be useful such that individuals can consider alternative career paths. Career mobility is a feasible alternative in today's globalized and increasingly service-driven economy. This alternative presents two work opportunities; expatriation and entrepreneurship.

The boundarylessness and protean nature of careers today demands that individuals become more flexible and adaptive to best manage their career development (Briscoe & Hall, 2006; Hall, 1996; Lent & Brown, 2013) to work even in unfamiliar environments. Moreover, the dynamics of labor market characterized by job insecurity, increased demand for services, high unemployment rates necessitate that individuals should be willing to adopt non-traditional employment such as self-employment. Both expatriation and entrepreneurship are not only avenues for shortening and smoothening school-to-work transition among new graduates, but individuals who choose these career choices make significant contributions to economic development. It is already well researched that entrepreneurship is an important contributor to economic development (Fritsch and Wyrwich, 2014; Williams et al., 2013). Similarly, expatriation makes valuable contribution to hosting organizations and economies (Al Ariss and Crowley - Henry, 2013; Dickmann and Baruch, 2011).

Career mobility has been widely studied in terms of working abroad, which is

propelled by either immigration or self-initiated (Al Ariss and Crowley - Henry, 2013). Particularly, expatriation from developed to developing countries; and between developed countries seems to be on a downward trajectory (Selmer, 2017) despite globalization and other challenges in the labor market. Other forms of career mobility involve movement to new positions or transition to another occupation. Geographical career mobility and entrepreneurial intentions have both been widely studied in career and entrepreneurship literature. Nevertheless, these have been studied separately. The career profiles based on value and mobility dimensions of protean and boundaryless careers (Briscoe & Hall, 2006) suggest that geographical mobility and transition into business can reinforce each other; and can therefore have similar predictors. Briscoe and Hall (2006) argue that a person's career orientation is shaped by a career mindset; suggesting that career orientation might be the link explaining the relationship from a protean personality to career mobility intentions.

The present study sought to examine the willingness of university students and the newly graduated to expatriate or engage in business. We describe a protean career personality in terms of flexibility and personal initiative; which are essential for protean career behaviors given that individuals with protean career orientation prefer to direct their careers (Hall, 1996). We thus test for effect of these protean career personality factors on expatriation and entrepreneurial intentions; and whether these effects are mediated by career orientation.

### **The Protean Career Personality**

It has been suggested that 21st century careers will be "protean" (Briscoe, Hall, & DeMuth, 2006; Briscoe & Hall, 2006), meaning that they will be driven by individuals, rather than by organizations. Hence individuals can enter and exit organizations or change careers when they deem it fit. The findings of research from the field of person-environment fit indicate that career functioning is best when there is a good fit, and moreover is a determinant of stability in the career path (Holland, 1996). From this perspective, individuals choose work environments as a result of many different factors, including their attitudes, values, abilities, personality, and job characteristics, as well as factors relating to organizational structure and culture (Smart, Feldman, & Ethington, 2000; Van Vianen, 2000). The selection of a career environment fitting to a person's characteristics is such that there is higher likelihood of success and satisfaction (Holland, 1996; Holland, 1997). Yet the selected environments further reinforce abilities and interests, hence facilitating success and persistence in the chosen career path. This also applies to expatriates; previous research suggests that a combination of individual and contextual factors affect success of expatriates (Kubra et al.,

2015).

Perceived congruence between person and work environment factors would result into more readiness for a given career path. Spokane, Meir, and Catalano (2000) show that the impact of this perceived congruence is reflected in career selections. Hence it can be expected that there are some people who are overall more ready to think about a job abroad or in business than others based on their personal characteristics and their perceived suitability to these career paths. Those should decide for a profession that makes it probable to be mobile or business oriented, and thus might take a study course associated with mobile and entrepreneurial jobs. Based on Holland's theory of vocational personalities (Holland, 1996; Holland, 1997), person-environment fit application to career research has emphasized the role of personality on career selection. From recent career literature emphasizing self-management and adoptability as requirements for contemporary careers (Arthur, 2014; Hamtiaux et al., 2013; Lent & Brown, 2013; Lent, Ezeofor, Morrison, Penn, & Ireland, 2016), we focus on two personal characteristics (rather personal competences), namely personal initiative and flexibility. We posit that these two traits describe what we label "protean personality", which are important for career paths in entrepreneurship and expatriate work. This is in line with Briscoe and Hall (2006) definition highlighting that protean careers involve two aspects; individual's internal values and self-direction in one's career management. These aspects indicate that career direction and success are dependent on a person's values and adaptability in career-related matters including decisions, choices, and activities. These two aspects emphasize the role of personal initiative and flexibility to career management; and we therefore agree in the present study that they are predisposing factors to readiness to expatriate or to go into business.

### ***Personal Initiative***

Personal initiative is both theoretically and practically significant for career management, including achieving success in the labor market and dealing with challenging career situations (Frese & Fay, 2001; Frese, Fay, Hilburger, Leng, & Tag, 1997). Its relevance to protean career concept is embodied in goal-directed behaviors such as proactivity and self-starting, persistence, and long-term focus (Fay & Frese, 2001; Frese, Kring, Soose, & Zempel, 1996; Frese et al., 1997). Unfortunately, we find no study confirming the impact of personal initiative on choosing expatriation or entrepreneurial career paths. However, personal initiative is closely linked to the concept of entrepreneurship, since entrepreneurial activities require creative and active capabilities (Frese et al., 1997; Solomon, Frese, Friedrich, & Glaub, 2013). This is in line with Holland's description of

enterprising individuals and the nature of careers that they thrive in (Holland, 1997). Consequently, it is expected that individuals with initiative competence would be attracted to and succeed in entrepreneurship (Frese & Fay, 2001; Frese et al., 1997; Glaub, Frese, Fischer, & Hoppe, 2014; Rooks, Sserwanga, & Frese, 2016). Moreover, a related personality construct, proactive personality, has been found to predict entrepreneurial intention in several studies (Crant, 1996; Dell and Amadu, 2015; Prabhu et al., 2012). The innovative and creative requirements of entrepreneurship are likely pull factors for individuals with high personal initiative trait to engage in entrepreneurial activities. We therefore expect that personal initiative predicts intention to engage in business. If this assumption is true, then low levels of initiative would be a fitting explanation of relatively low levels of entrepreneurship that was previously observed in some parts of Germany. Literature indicates that particularly in parts of East Germany, initiative was for some time perceived as bad thing and often punished (Frese et al., 1997). Regarding international mobility, we do not find a study linking it to personal initiative. However, literature shows that personal initiative is an important concept in proactive behaviors (Ito, 2003). Career mobility belongs to this category of behaviors. We can therefore also expect personal initiative to predict readiness to engage in expatriate work.

*H1a:* Personal initiative is positively related to entrepreneurial intention

*H1b:* Personal initiative is positively related to expatriation intention

### ***Flexibility***

Hossiep and Paschen (1998) categorize flexibility as an important vocational trait (see: Bochumer Inventory for work-based personality description, BIP). In the discourse of career development in the 21<sup>st</sup> century, scholars have advocated for flexibility and adaptability for increased chances of career success. Accordingly, malleability in decision making enables individuals to manage career transitions and cope with changes in conditions (Hartung, Porfeli, & Vondracek, 2008; Koen, Klehe, & Van Vianen, 2012; Lent & Brown, 2013). Thus adaptability becomes an important predictor of career success (Zacher, 2014), but also the readiness to try new career possibilities when required or when there is an opportunity.

Regarding mobility, flexibility facilitates coping with tasks and conditions during expatriation (Baruch, Altman, & Tung, 2016; Briscoe & Hall, 2006; Tung, 1982). Flexibility enhances openness to situations, including new cultures which does not only increase adaptation but also willingness to work in new places (Froese et al., 2013). Literature also suggests that flexibility can shape the direction of career (Briscoe & Hall, 2006), thus the

potential to influence an individual's career path. In relation to expatriation, there is remarkable increase in self-initiated expatriation (Baruch et al., 2016; Bozionelos, 2009; Doherty, Richardson, & Thorn, 2013). This indicates willingness to expatriate; hence suggesting that some individuals seem to be more ready to work abroad. Similarly, success in entrepreneurial roles requires high level of flexibility for effective functioning in the highly dynamic business environment; facilitating learning from experiences and adaptability in business decisions and actions (Haynie et al., 2010). Yet this adaptability has been found to relate to entrepreneurial intentions in some populations (Urban, 2012). From the person-environment fit theories, particularly Holland's typology of career environments (Holland, 1997), flexible work trait fits with the requirements of both entrepreneurial and expatriation roles, hence we expect that flexibility will predict both intention to expatriate and entrepreneurial intention.

*H2a:* Flexibility work trait is positively related to expatriation intention

*H2b:* Flexibility work trait is positively related to entrepreneurial intention

### **Career Attitudes as Mediating Link**

People choose certain careers or transiting from one to another for different reasons, which Schein labelled as career anchors (Schein, 1996). From the taxonomy of eight anchors (Schein, 1996), it is observed that at least three, including autonomy, dedication, and pure challenge are situated in the concept of values and attitudes (Rodrigues et al., 2013). This illustrates the importance of attitudes in understanding career interests and choices. Lent et al. (1994) also demonstrate the essentiality of attitudes in understanding career interests and choices. They define attitudes in terms of likes, dislikes, and indifference; hence the career interests are a subject matter of attitudes, which eventually influence choices. Expatriation and entrepreneurship studies have shown the impact of attitudes on intention and on actual behavior (e.g. Douglas & Shepherd, 2002; Fayolle & Gailly, 2015; Froese & Jommersbach, 2013). In the present study, we focus one such attitude that is important to protean and boundaryless careers, namely career orientation.

Career orientation attitude is largely reflected in the expression of career ambition (Otto, Roe, Sobiraj, Baluku, & Garrido, 2017) and denotes the resolute desire to attain one's vocational goals (Maier et al., 2009). This approach of understanding career orientation particularly emphasizes the preference for intrinsic over extrinsic rewards from the career activities (Simpson, 2005) in line with self-determination perspective (Deci and Ryan, 2000, 2008). In this paper however, we particularly focus on the intrinsic aspect of the desire to be successful in work that is close to one's professional field. We presume that this desire might

constrain or enhance the intention to go into business or to expatriate. Stumpf (2014) argues that individuals use mobility to advance their career success. Towards this regard, we assume that expatriation, which involves professionals offering their expertise to foreign organizations and governments (Al Ariss and Crowley - Henry, 2013) offers better chances of professional success. Although some professions such as medicine, psychology, engineering, information technology, and many others do offer good business opportunities that are professionally related in form of consulting and freelancing. We therefore expect career orientation to be related to both expatriation and entrepreneurial intentions.

*H3a.* Career orientation is positively related to expatriation intention

*H3b.* Career orientation is positively related to entrepreneurial intention

The socio-cognitive approach highlights a triadic interaction of contextual, personal and cognitive factors in influencing career behaviors (Lent et al., 2000; Lent et al., 1994). On this foundation, they propose that cognitive processes mediate the impact of personal and socialization factors on subsequent career behavior. Thus we propose that career orientation attitude mediates the impact of protean personality factors on expatriation and entrepreneurial intentions. Lent et al. (1994) illustrate the mediational role of attitudes by defining career interests in terms of likes, dislikes and indifference; which develop from interactions with the environment. Most of previous studies on expatriation and entrepreneurship have treated attitudes as a mediator (e.g. Froese & Jommersbach, 2013; Kautonen, Tornikoski, & Kibler, 2011). Following this idea, we therefore expect that a protean personality predisposes individuals to be high on career orientation, which in turn may shape the development of career mobility intentions whether to expatriate or to go into business.

*H4a:* Career orientation mediates the effect of personal initiative on expatriation intention.

*H4b:* Career orientation mediates the effect of personal initiative on entrepreneurial intention.

*H4c:* Career orientation mediates the effect of flexibility work trait on expatriation intention.

*H4d:* Career orientation mediates the effect of flexibility work trait on entrepreneurial intention.

### **Empirical Studies**

We investigated our hypotheses in samples of German university students from different fields of study (Study 1) as well as young psychology graduates from the University of Leipzig (Germany) who were in the school-to-work transition phase (Study 2). These studies are described in the subsequent sections.

#### **Study 1: Training period**

### ***Sample and Procedure***

Data from 443 German university students aged between 18 and 54 years ( $M=23.05$ ;  $SD=3.49$ ) were gathered via an online survey. The sample consisted of 168 business management students (47.6% male), 161 psychology students (14.3% male), and 114 students of engineering and natural science (77.2% male). With respect to prior experiences, 128 students had been abroad for more than three months, and 94.6% had changed their location at least once ( $M=2.19$ ;  $SD=1.92$ ). Only 4.1% had parental duties to fulfil, and 38.1% were in a partnership or married.

### ***Research Instruments***

Answers to all measures had to be given on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree): For further analyses, scale scores were estimated by averaging across items. When more than one item per scale was missing the whole scale was defined as missing. Means, standard deviations and inter-correlations of the variables are provided in Table 1.

***Career mobility.*** Expatriation intentions were assessed with the four most valid items of a scale to measure geographic mobility readiness by Dalbert and Otto (2004). Note the original scale was modified in a way that all items were now related to the context of foreign countries ( $\alpha=.86$ ; e.g., “I can easily image myself working for a limited time abroad.”). To reflect entrepreneurial intentions we selected the four most valid items from a scale to measure entrepreneurial mobility readiness by Glaser and Dalbert (2004;  $\alpha=.90$ ; e.g., “To set up a business of my own is part of my professional goals”).

***Protean career mindset.*** We identified two personality concepts relevant for protean career development, namely adaptability (Hall, 2002) and self-directedness (Briscoe & Hall, 2006) and assessed these using work-based flexibility and personal initiative. Personal initiative was assessed with 7 items (Frese, Fay, Hilburger, Leng & Tag, 1997;  $\alpha=.78$ ; e.g., “Whenever there is a chance to get actively involved, I take it.”). Flexibility was gathered with the 14 items of the flexibility subscale of the Business-focused Inventory of Personality (BIP; Hossiep & Paschen, 1998, 2008;  $\alpha=.83$ ; e.g., “I perceive it as a challenge when I am confronted with unforeseeable situations”).

***Career attitudes.*** Career orientation was operationalized by a scale from the German General Social Survey (Koch *et al.*, 1994) which comprised 4 items ( $\alpha=.75$ ; e.g., “To be successful in my profession is very important to me”).

### ***Analytic Strategy and Pre-Analysis***

Latent-variable structural equation modeling (SEM) with AMOS (Arbuckle, 2014) was used for testing the hypotheses separately for the two samples. Baron and Kenny (1986) argue that SEM is an adequate method to analyze mediation paths. In order to analyze the data, we built a mediation model with the mediator career orientation (H3b). As latent measures, personal initiative and flexibility were the independent variables and entrepreneurial intentions and expatriate intentions were the dependent variables. Since former research show that individual's characteristics impact on mobility intentions (Tekleselassie and Villarreal, 2011) sex and age were introduced as controls in all our models. Possible mediation effects were examined using Sobel's (1982) test of indirect effects. We tested the hypotheses with structural equation models,

To estimate the adequacy of the measurement and structural models we used the root mean square error of approximation (RMSEA). In addition, we applied the Comparative-Fit-Index (CFI) as incremental fit index because it performs well when the sample size is rather small (Fan et al., 1999). A value of  $>.95$  was recognized as indicative of a good fit (Hu and Bentler, 1999).

To deal with potential risks of common method variance (CMV), we followed suggestions made by (Podsakoff et al., 2003) and applied Harman's single-factor test, which entails modeling all of the manifested items as indicators of a single factor that represents method effects. Note, Williams, Cote, and Buckley (1989) demonstrated that about one quarter of the variance in the measures examined in past literature on self-reported perceptions at work was attributable to method effects; which indeed in the fields of psychology or sociology was even higher at 28.9% (Cote and Buckley, 1987). Harman's single-factor test revealed a poor fit to the data for the students ( $\chi^2 = 3826.02$ ,  $df = 495$ , CFI =  $.37$ , RMSEA =  $.12$ ), as well as for the alumni sample ( $\chi^2 = 1490.61$ ,  $df = 377$  CFI =  $.47$ , RMSEA =  $.15$ ). Therefore, CMV does not seem to be substantial and we decided to continue analyzing our data without considering a method factor.

### ***Results and Discussion***

Means, standard deviations, and inter-correlations for all measures are presented in Table 1.

*Insert Table 1 around here*

According to Baron and Kenny (1986), the precondition of mediation testing is that there is a direct relation between the independent and the dependent variables. To analyze this precondition derived from Hypothesis 1 and Hypothesis 2 in the first step we built a

model with no mediation paths (1). Furthermore, the proposed theoretical model was tested (see Figure 1) with direct effects of the predictors on the outcomes and a mediation effect of career orientation on expatriate intentions (2). The model without mediation paths (1) yielded good values of RMSEA and CFI (see Table 2).

*Insert table 2 here*

*Insert Figure 1 here*

In line with H1a we found a positive direct effect of personal initiative on entrepreneurial intentions ( $\beta = .28$ ;  $p < .001$ ). However, in relation to H1b, no direct effects of personal initiative on expatriate intentions was found ( $\beta = .07$ ;  $p = .620$ ). Moreover, we found a positive direct effect of flexibility on expatriate intentions ( $\beta = .31$ ;  $p < .001$ ) confirming H2b but not on entrepreneurial intentions ( $\beta = .03$ ;  $p = .35$ ) whereby disconfirming H2a.

Similar to the model without mediation paths, the proposed theoretical model including career orientation as mediator had good values of RMSEA and CFI (see Table 2).

In line with H3a, career orientation was significantly related to entrepreneurial intentions ( $\beta = .28$ ,  $p < .001$ ). However, disconfirming H3b career orientation was not significantly related to expatriate intentions ( $\beta = .10$ ,  $p = .09$ ).

With respect to Hypotheses 4, we assumed that career orientation mediates the relationships between the two protean career factors personal initiative and flexibility and entrepreneurial intentions and expatriate intentions. As illustrated in Figure 1, personal initiative was significantly related to career orientation ( $\beta = .51$ ,  $p < .001$ ). However, flexibility was not significantly related to career orientation ( $\beta = -.09$ ,  $p = .17$ ). According to Sobel's test of indirect effects, career orientation only mediated the effects of personal initiative on entrepreneurial intentions ( $\beta = .14$ ;  $Z = 3.89$ ,  $p < .001$ ). No significant indirect effect of personal initiative on expatriate intentions ( $\beta = .05$ ;  $Z = 1.58$ ,  $p = .11$ ) and of flexibility on entrepreneurial intentions ( $\beta = -.03$ ;  $Z = -1.38$ ,  $p = .17$ ) and expatriate intentions ( $\beta = -.01$ ;  $Z = -1.08$ ,  $p = .28$ ) was found (see Figure 1). Thus, we could confirm H4a, but not H4b, H4c, or H4d.

## **Study 2: Professional entry period**

### ***Sample and Procedure***

A sample of psychology graduates from the University of Leipzig (Germany) was recruited using again an online survey. Overall, 154 psychologists participated and answered the online questionnaire (rate of return: one third of all contacted graduates). We excluded self-employed psychology graduates from our analyses, since they already have converted

their intentions into entrepreneurial actions. Of the remaining 100 participants 78% were female, 52% worked in the field of Clinical Psychology, and 55% held a supervisory position.

### ***Instruments and Analytical strategy***

We used the same measures for all assessed constructs as in Study 1. All measures, showed acceptable reliability coefficients (see Table 3). The same analytic procedure used in Study 1 was also applied to Study 2.

### ***Results and Discussion***

Means, standard deviations, inter-correlations, and reliability for all measures are presented in Table 3.

*Insert Table 3 here*

Replicating findings of Study 1, the model without mediation paths (1) yielded good values of RMSEA and CFI (see Table 4). Similar to the model without mediation paths, the proposed theoretical model including career orientation as mediator had good values of RMSEA and CFI (see Table 4).

*Insert table 4 here*

*Insert Figure 2 here*

Disconfirming H1a and H1b we did not find a significant effect of personal initiative on entrepreneurial intentions ( $\beta = .18; p = .16$ ) nor on expatriate intentions ( $\beta = .09; p = .51$ ) among the sample of psychology graduates. However, we found significant effects of flexibility on entrepreneurial intentions ( $\beta = .24; p < .05$ ) and on expatriate intentions ( $\beta = .35; p < .001$ ) confirming H2a and H3b. Contradicting H3a and H3b career orientation was not significantly related to entrepreneurial intentions ( $\beta = .05, p = .76$ ) or expatriate intentions ( $\beta = .10, p = .55$ ). With respect to Hypotheses 4, we assumed that career orientation mediates the relationships between the two protean career factors personal initiative and flexibility and entrepreneurial intentions and expatriate intentions. As illustrated in Figure 2, personal initiative was significantly related to career orientation ( $\beta = .83, p < .001$ ). However, flexibility was not significantly related to career orientation ( $\beta = -.14, p = .13$ ). According to Sobel's test no significant indirect effect of personal initiative on entrepreneurial intentions ( $\beta = .04, Z = 0.31, p = .76$ ) and expatriate intentions ( $\beta = .09, Z = 0.59, p = .55$ ) and of flexibility on entrepreneurial intentions ( $\beta = -.01, Z = -0.30, p = .76$ ) and expatriate intentions ( $\beta = -.01, Z = -0.49, p = .63$ ) was found (see Figure 2). Thus, we could not confirm H4a, H4b, H4c, or H4d.

### **General Discussion**

The current labor market highlights the importance of protean career mindset and behaviors for especially young people today who are faced with unemployment challenge or preparing for the task of school-to-work transition. Particularly, the need for career mobility has been strongly advocated for. In the present studies, we examined the impact of protean personality traits (as reflected in two personality attributes of personal initiative and flexibility, and career orientation attitude) on career mobility intentions (specifically entrepreneurial and expatriation intentions); and whether the impact of personal initiative and flexibility on entrepreneurial and expatriate intentions are mediated by career orientation.

The results of both studies indicated that flexibility had substantial positive effect on expatriation intentions, yet almost similar effects in both studies (Study 1 with a sample of students and Study 2 with a sample of psychology graduates). However, flexibility was related to entrepreneurial intentions only among the sample of psychology graduates, and not in the student sample. This implies that for psychologists who are already working or in the job market, flexibility plays a role in willingness to be mobile (both willingness to go into business or to work abroad). However, among the students' sample flexibility only matters when considering expatriate work but not when it comes to going into business. It should be noted that during the course of training, students only have selected the course of study, but may not have firm thoughts or decisions about career path options for entry or success in the labor market. Students with strong flexibility trait, yet focused on professional career success, may therefore think of expatriation as a more viable career path than entrepreneurship. This could also be because most students could have had international internship experiences which sensitizes them to expatriate work (Mather, 2008; Ryan, Silvanto, & Brown, 2013; Stumpf, 2014), yet many students hardly have training or experiences in business except for those in business-related courses. Hence, there is a possibility that the influence of flexibility on students' choice for expatriation or entrepreneurship is affected by professional socialization.

For psychology graduates, on the other hand, flexibility might enable them to have open minds towards expatriation and entrepreneurship. There are two possible explanations for this relationship. First, flexibility in career decisions is related to openness for new career experiences as well as managing career transitions (Froese et al., 2013; Koen et al., 2012). Hence for flexible graduates who are either in the process of transiting from school to work, or seeking new career experiences, both expatriation and entrepreneurship are attractive career paths. Second, psychology is one of the professions with massive potential for self-employment through private practice (for example, we excluded 35.07% of psychology

graduates in Study 2 from the analysis because they were already self-employed). Yet psychologists (particularly at high level of training) in private practice tend to earn more than their counterparts (Finno et al., 2010). Hence private practice, just like expatriation, is an attractive career path for psychology graduates with high level of flexibility.

Concerning the role of personal initiative, a positive correlation was found with entrepreneurial intentions in Study 1 but this relationship could not be confirmed in Study 2. Moreover, personal initiative was not related to expatriation intentions in both studies, hence, it seems that personal initiative matters less regarding willingness to work abroad. Whereas personal initiative is believed to play a role in exhibiting proactive career behaviors (Frese and Fay, 2001; Ito, 2003) to which career mobility belongs, the present studies show it has negligible effects on expatriation intention. However, we at least find substantial impact on entrepreneurial intentions among students, which confirms contribution of proactivity on entrepreneurial development, not only in terms of success (Glaub et al., 2014) but also in consideration of entrepreneurship as desirable career path (Zampetakis, 2008). Extant literature supports the idea that personal initiative is important for selecting a career in entrepreneurship (e.g. Dell & Amadu, 2015; Frese & Fay, 2001; Holland, 1997; Zampetakis, 2008).

In this paper, we have conceptualized that protean personality traits are characterized by two traits of personal initiative and flexibility as well as the career orientation attitude. We proposed that career orientation is likely to mediate the effects of personal initiative and flexibility on career mobility intentions (entrepreneurial and expatriation intentions). Contrary to this assumption, results from both studies show that career orientation is not related to flexibility and expatriation intentions. However, in both studies, we find that personal initiative has positive significant relationships with career orientation. The striving for professional excellence describes the core essence of career orientation (Maier et al., 2009; Otto et al., 2017). In the era of protean and boundaryless careers, being proactive and taking career initiatives are some of the ways that people achieve career success (Seibert et al., 2001). Therefore, individuals with high level of career orientation are likely to exhibit personal initiative related behaviors.

Moreover, our mediation model indicated that the impact of personal initiative on entrepreneurial intention is mediated by career orientation. This mediation, however, turned out to be insignificant for expatriation intention. Career-oriented individuals tend to consider their career success as one of the most important things (Ellemers et al., 1998), with high desire for achievement (Otto et al., 2017). Yet business offers both opportunities for

individuals to pursue their high career ambitions and exercise their creativity and innovativeness. On the other hand, expatriation does not necessary offer opportunities to exercise one's creativity and high achievement ambitions. Hence entrepreneurship is a desirable career path for individuals, particularly students, with both high personal initiative and career orientation. Our findings show that personal initiative has a direct as well as indirect effect on entrepreneurial intentions. Since we could not confirm this finding with the sample of psychology graduates, we encourage that future mobility research particularly focusing on willingness to switch to entrepreneurship or work abroad should consider differences between different professions or different steps during career (i.e. still on search regarding one's career path or after professional entry).

### ***Limitations and Potentials***

Our studies have a number of limitations and potentials that should be considered. Concerning the limitations, only self-report measures were used. Therefore, we cannot rule out the effect of shared method bias that might magnify the observed relationships among the variables. However, according to our analyses regarding common method effects this problem does not seem to be severe. In addition, both studies were cross-sectional surveys, which restrict the confirmation of the causality between the measures. Yet previous studies have indicated that career choices and mobility behaviors are also related to socialization during professional training (Porter and Umbach, 2006; Ryan et al., 2013, 2015). Future studies might benefit from investigating robust samples at multiple time points to examine differences between different professions and individuals from different regions or countries.

Despite these limitations, there are potential strengths, making the results of the present studies important contributions to career mobility literature. Particularly, we test our assumptions with a sample of students (during their training period) as well as a sample of graduates (after professional entry). We could observe several similarities in the results with both samples, for example the relationship between flexibility and expatriation intention. This to some extent offsets the weakness of correlational data and self-report measures. Moreover, by focusing on both samples, we have substantiated between the mobility intentions of graduates from those of students, and the "protean traits" that are related to these mobility intentions.

### ***Conclusion and Implications for Practice***

In summary, our results propose that protean traits, flexibility and personal initiative,

as well as career orientation attitude play important roles in choosing mobility career paths. Particularly, results of our studies show that flexibility enforces the willingness to expatriate among both students and psychology graduates; but also entrepreneurship intentions among psychology graduates. However, career orientation could not mediate these effects across both studies. In contrast to that, to possess personal initiative seems to be a key factor in considering a career in business among students, but not among psychology graduates. Our results indicate that personal initiative has the highest correlations with career orientation, as shown in the models of both studies. Nonetheless, career orientation only mediated the personal initiative-entrepreneurial intentions link in the student sample but not in the sample of psychology graduates. This might be traced back to the fact that graduates already made a decision regarding their career path, limiting the role of career orientation. For the students, however, a strong career orientation could work as a guidance principle in exploring their opportunities and making professional choices.

These findings have implications particularly for vocational counseling and guidance as well interventions seeking to promote career mobility among young people. In general, for the students (those still in their education/training period), the specific protean personality concept plays a role as it shows a differential pattern of relationships: Whereas for entrepreneurial intentions, being initiative is a central key, for expatriate intentions flexibility emerged to be substantial. For those already working in their chosen profession yet, the role of personal initiative vanished and only flexibility could be regarded as a resource when it comes to higher expatriate or entrepreneurial intentions. Hence practitioners could gear their efforts towards enhancing students' potential for proactive career behaviors and career orientation attitude to increase students' likelihood of choosing the entrepreneurial path. To increase students' willingness to work abroad, practitioners should particularly focus on flexibility. However, for graduates, increasing their potential for career flexibility likely shapes both intentions that to work abroad and to go into business. In a highly globalized working world moreover, with exacerbated unemployment and job insecurity, both mobility options (expatriation and entrepreneurship) provide good opportunities for a fast school-to-work transition and career success.

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**Table 1.** Descriptive findings and correlation of the study variables

	<i>N</i>	<i>M</i>	<i>SD</i>	$\alpha$	(A)	(B)	(C)	(D)	(E)
Personal initiative	44 2	4.41	0.64	.77	(A) )	1			
Flexibility	44 3	3.64	0.66	.84	(B)	.43**	1		
Career orientation	44 2	4.20	0.83	.73	(C)	.37**	.15*	1	
Entrepreneurial intentions	44 3	3.82	1.31	.91	(D) )	.23**	.18*	.34*	1
Expatriate intentions	44 1	4.50	1.16	.85	(E)	.20**	.31*	.14*	.14*

\*\*  $p < .05$ , \*  $p < .01$

**Table 2.** Fit indices for the student sample

	$\chi^2$	<i>df</i>	RMSEA	CI <sub>(RMSEA)</sub>	CFI	<i>p</i>
1 Model without mediation	70.51	23	0.07	.05 - .09	0.97	<.001
2 Proposed model	74.79	27	0.06	.05 - .08	0.97	<.001

**Table 3.** Descriptive findings and correlation of the study variables

	<i>N</i>	<i>M</i>	<i>SD</i>	$\alpha$	(A)	(B)	(C)	(D)	(E)
Personal initiative	100	4.28	0.72	.86	(A)	1			
Flexibility	100	3.64	0.70	.88	(B)	.45**	1		
Career orientation	100	4.09	0.88	.83	(C)	.65**	.25*	1	
Entrepreneurial intentions	99	3.74	1.48	.92	(D)	.29**	.32**	.23*	1
Expatriate intentions	100	4.19	1.38	.85	(E)	.24*	.37**	.22*	.08

\*\*  $p < .05$ , \*  $p < .01$

**Table 4.** Fit indices of the psychology graduate sample

	$\chi^2$	<i>df</i>	RMSEA	CI <sub>(RMSEA)</sub>	CFI	<i>p</i>
1 Model without mediation	28.51	23	.05	.00 - .10	0.99	0.20
2 Proposed model	31	27	.04	.00 - .09	0.99	0.27

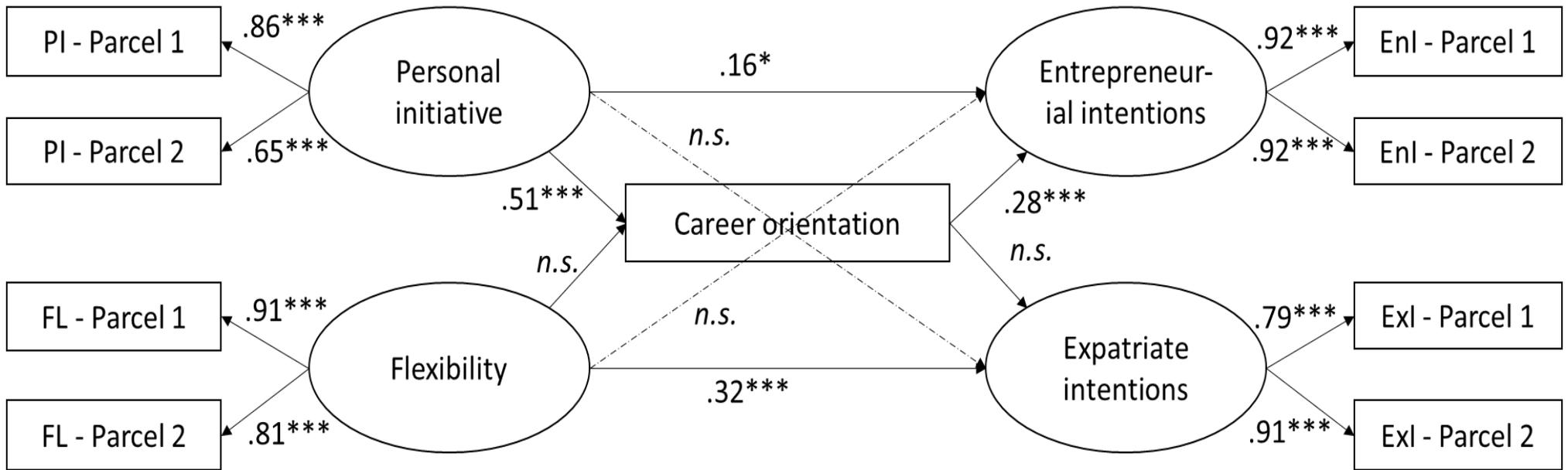


Figure 1. Mediation model for the student sample

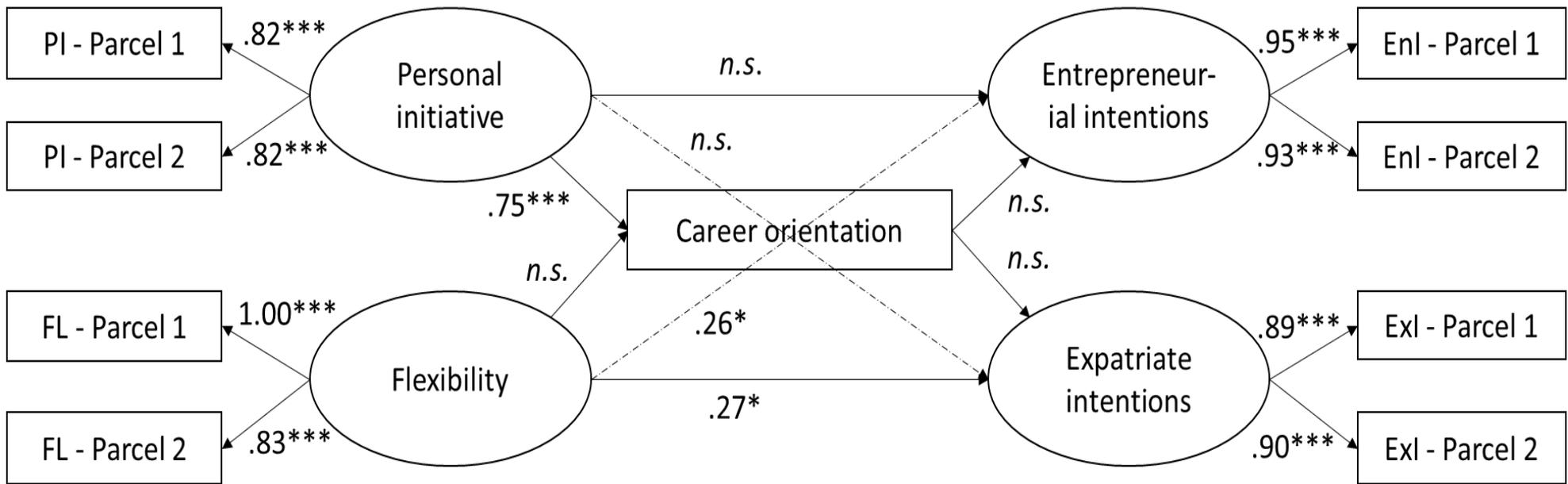


Figure 2. Mediation model for the sample of psychology graduates

**Manuscript #2**

**The Role of Selection and Socialization Processes in Career Mobility: Explaining  
Expatriation and Entrepreneurial Intentions**

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### **Abstract**

The traditional career, staying for the entirety of one's work life in an occupation once learned, is a phase-out model. The current career environment demands more flexibility and mobility. Previous research indicated individual differences between mobile and non-mobile people. On the basis of selection (career orientation and competition orientation) and socialization process (course and length of study), we examined the intentions of university students to expatriate or to go into business as alternatives to traditional employment. Findings reveal that entrepreneurial intentions are predominantly a function of selection processes; while expatriation intentions are a function of both selection and socialization processes.

*Keywords:* career mobility, career selection theories, career socialization, entrepreneurial intentions, expatriation, international mobility

## Introduction

Individuals seek higher education for different reasons. But for most, it is about improving employability and a path towards career success. This defines that several questions graduates ask themselves. For example; will I find a decent and well-paying job in line with what I have studied? How do I become successful in a short time? Do I have the capacity to go into the next step of my career development? How do I get started in the labour market? These are some of the questions that students raised in a chat of one of the authors with his graduating students. The most interesting issue was raised by a graduate who already had a volunteering position. She stated that chances are slim of getting what one wants because life changes suddenly; those who give jobs don't even care about one's college grade but the value one brings to the company; yet lecturers did not tell us these realities.

These questions indicate that a university degree alone is not a guarantee for a successful career anymore (Falk & Reimer, 2007). So, what about alternative career paths to the traditional organizational, salaried employment? For example, what about self-employment or expatriation? In boundaryless career, individuals experience series of frequent transition cycles (Parasuraman, Greenhaus, & Linnehan, 2000), hence individuals can start a career life at any point that offers them the fastest transition from school or unemployment to work; as they explore opportunities in the fields of their specialty. Moreover, across various academic professions, careers have become less predictable and less structured (Arnold, 2001). The so-called "hard skills" like expert knowledge are no longer sufficient for "climbing the ladder" or for sustaining one's employability (Laker & Powell, 2011). The present vocational environment is very dynamic characterized by uncertainties, globalization, competition in labour market, new work arrangements, and job insecurity (Lent & Brown, 2013). These and other factors demand a high level of flexibility in career decisions; but also a call for young people to self-determinedly take charge of their career development (Arthur, 2014; Lent & Brown, 2013). These emphases have implications on vocational counselling (Amundson, 2005), particularly guiding young people to kick-start their career in the present day turbulent labour market. To avoid challenges associated with prolonged transition from school, or following unemployment, there are two alternatives (both of which suggest career mobility) for young graduates: expatriation (to work abroad) and self-employment or entrepreneurship.

In a highly globalized world, individuals have attractive opportunities for business, study and work almost anywhere (Findlay, King, Smith, Geddes, & Skeldon, 2012; Froese, 2012). Hence being mobile is not only en vogue, but also more of a necessity for today's

workforce. In earlier times the slogan "today here, tomorrow there" was a sign of privilege, almost exclusively reserved for those of high potential. Being mobile seems to be stock and trade for many graduates today. The attributes of graduates today, such as young age and culturally adaptable (Locks et al., 2008) can enable them to work abroad as expatriates or entrepreneurs with less impediments. Mobility is frequently seen as one central point for making a successful career. In line with this assumption, several studies have underlined that mobile people report higher career success on both objective and subjective measures (e.g. Verbruggen, 2012).

The study applies selection and socialization theories to explaining readiness to expatriate and to go into business. Despite the extensive research on selection and socialization factors on career choices and consequent success, Porter and Umbach (2006) observed that researchers have not integrated the theoretical perspectives for a broader examination. Whereas Porter and Umbach applied a combined model, the focus was confined to effects of race and gender (socialization) and personality (selection) on choice of college majors. However, this gap has not been addressed in relation to choice of career paths at or after graduation. The present study therefore aims to contribute to career mobility literature by juxtaposing the selection and socialization process as predictors of readiness to expatriate or go into entrepreneurship as alternatives to traditional employment. Our emphasis is that some aspects of selection and socialization processes explain readiness to work abroad and to go into business, while other aspects explain only one of the two alternative career paths. We also test for the interaction of the two approaches in explaining career path choices; which has implications for career guidance for young people preparing to enter the labour market.

### **Person-Environment-Fit as a model for selection and socialization**

The person-environment-fit perspective is well suited to the study of whether individuals select a career path due to personal attributes or because of some socialization mechanisms, or an interaction of both. Research findings highlight a good person-environment fit as antecedent for optimal career functioning. This fit further facilitates stability in the chosen career path (Holland, 1996). From this perspective, choice of work environments is based on personal factors such as attitudes, values, abilities, personality; and job factors including work characteristics, organizational structure and culture (van Vianen, 2000). Therefore, a preferred career path is a general representation of one's self-concept (Parasuraman et al., 2000). The consideration of these factors is such that individuals choose careers where they have higher likelihood of success and satisfaction (Holland, 1996, 1997)

as well as persistence (Donohue, 2006; Lent et al., 2013). A fitting work environment reinforces abilities and interests, thus enabling success and persistence in the chosen career path.

Perceived congruence between person and work environment factors is reflected in career selections (Spokane, Meir, and Catalano, 2000). Hence, based on perceived congruence suitability of mobile careers, some people are more likely to be ready than others for a job abroad or to go into business. Based on Holland's theory of vocational personalities (Holland, 1996, 1997), person-environment fit application to career research has emphasized the role of personality on career choices.

Expatriation and going into self-employment can be regarded as career adaptive behaviours. That is, they offer opportunities for individuals to direct their own career development, in line with social cognitive model of career self-management (Lent & Brown, 2013). This model presents career adaptive behaviours as a function of personal and contextual determinants. Personal antecedents include attributes such as self-efficacy, personality, interests and abilities; while contextual influences include educational influences and socio-economic resources. These factors tend to influence individuals' self-efficacy to explore careers as well as to take decisions and actions (Lent & Brown, 2013). The person aspects suggest a selection process, while the environment aspects suggest a socialization process through which individuals develop interest in expatriation or entrepreneurship.

### **Selection Process**

The selection process comprises of personal attributes including personality, competences, and attitudes. Particularly, it is posited that personality aspects influence career adaptive behaviours through the emotional responses (Lent & Brown, 2013). However, the affective attributes used by the person are also dependent on the specific adaptive behaviour of interest (Lent, Ezeofor, Morrison, Penn, & Ireland, 2016). Hence, in the present study, we specifically focus on the attitudinal aspect of personal attributes that influence career adaptive behaviours. The essentiality of attitudes in career selection and choices has been demonstrated in different models, for example, Schein (1996) careers anchors and planned behaviour theory (Ajzen, 1991). We therefore posit that attitudes play a role in choice for a career in business or expatriation. Attitudes can also be considered as aspects of a socialization process. However, the study particularly focuses on two attitudes; competition and career orientations, which we consider as subjective representations of career preferences situated in personal attributes rather than socially framed.

**Competition Orientation:** A competitive attitude reflects an individual's winning mentality (Schwarz, Wdowiak, Almer-Jarz, & Breitenecker, 2009). Competitiveness is increasingly becoming a key aspect of career life; especially in striving for success both in school and at workplaces. It has been argued that competitiveness can be healthy for personal development for it facilitates mastery (Ryckman, Hammer, Kaczor, & Gold, 1996). Mastery or self-efficacy is important for expatriation and entrepreneurial intentions. Particularly, establishing a business is one way individuals express and fulfil the need for competition (Schwarz et al., 2009). On the contrary, expatriates work in organizational context where teamwork rather than competition is emphasized. However, the competition in the global labour market requires individuals to be competitive. We therefore hypothesize that:

**H1a.** Competition orientation is associated with entrepreneurial intention.

**H1b.** Competition orientation is associated with expatriation intention.

Related to the need for competition is *career orientation* attitude, which is largely an expression of career ambition (Otto, Roe, Sobiraj, Baluku, & Garrido, 2017) and the resolute desire to attain one's vocational goals (Maier, Wastian, & Rosenstiel, 2009). This approach of understanding career orientation particularly emphasizes the preference for intrinsic versus extrinsic rewards from the career activities (Simpson, 2005) in line with self-determination perspective (Deci & Ryan, 2000, 2008). In this paper however, we particularly focus on the intrinsic aspect of the desire to be successful in work that is close to one's professional field. We presume that this desire might constrain or enhance the intention to go into business or to expatriate. Stumpf (2014) argues that individuals use mobility to advance their career success. Towards this regard, we assume that expatriation, which involves professionals offering their expertise to foreign organizations and governments (Al Ariss & Crowley-Henry, 2013) is an opportunity for professional success. On the contrary, some professions such as medicine do offer good business opportunities that are professionally related; where individuals are self-determinedly specialize in businesses that are in line with their intrinsic profession interests.

**H2a.** Career orientation is associated with entrepreneurial intention.

**H2b.** Career orientation is associated with expatriation intention.

## **Socialization Process**

Although career choices are relatively stable, research shows they are influenced by environmental factors to some extent (Rodrigues, Guest, & Budjanovcanin, 2013). The socialization view posits that adaptive intra-personal and inter-personal processes, occurring

for example during training, lead to attitudinal and behavioural changes that in turn affect career interests and choices (Starr & Fondas, 1992). Research based on social cognitive perspective (Lent, Brown, & Hackett, 1994) has demonstrated how social environments impact on career processes and outcomes (e.g. Lent & Brown, 2013; Thungjaroenkul, Cummings, & Tate, 2016). Social contexts influence development of career preferences over time through individuals' interactions with the social environment; including family, culture, education, labour market dynamics, and work experience (Rodrigues et al., 2013). These contexts provide scripts of normative principles for career actions (Dany, Louvel, & Valette, 2011), hence shaping career preferences (Rodrigues et al., 2013). Specifically, professional socialization occurring during training (e.g. during internships) impact on beliefs and values (Howkins & Ewens, 1999). We focus on two factors of professional socialization that occur during training; course and length of study.

### **Course and Length of Study**

Besides selection of particular courses based on selection process (e.g. match in personal and profession characteristics), students are also socialized towards certain career paths during the course of study. In the process of study, schools or faculties and their characteristics not only impact on abilities, interests, and learning outcomes, but also on students' career choices at graduation (Porter & Umbach, 2006). Moreover, the effect of the course of study lasts long after completion of college (Porter & Umbach, 2006). These effects are, for example, related to entrepreneurial intentions (Fayolle & Gailly, 2015; Piperopoulos & Dimov, 2015).

To enhance professional socialization, most universities/colleges require their students to undertake several months of internship. It is increasingly common that students prefer an internship position abroad, which in turn socializes them towards expatriation. Moreover, there is an increasing number of programs that specifically promote student mobility such as ERASMUS (Teichler & Jahr, 2001). Most students who study abroad get employed abroad (Arthur & Flynn, 2011; Teichler & Jahr, 2001) since hosting countries are increasingly recognizing such students as potential boost to their human capital. Moreover, courses involving international engagements produce more mobile graduates (Ryan, Silvanto, & Brown, 2013). This supports the hypothesis that previous mobility is associated to future mobility behaviour (Froese, Jommersbach, & Klautzsch, 2013; Stumpf, 2014).

The university's orientation (Ryan, Silvanto, & Ozkaya, 2015) and course of study also determines socialization opportunities available to students. Internships abroad are

emphasized for some courses such as international business studies. Such experiences, in line with the social cognitive career theory (Lent et al., 2000; Lent & Brown, 2013; Lent et al., 1994), are sources of self-efficacy which influence career interests; and at the same time are proximal contextual factors that have the potential to directly inspire students' career choices at or after graduation. Hence, differential potential for career mobility are influenced by the extent of international or business orientation of the course of study, or the orientation of university itself.

Previous research has mostly emphasized the course of study, course content, and level at which entrepreneurship education is offered (e.g. Nabi & Liñán, 2011; Wu & Wu, 2008). Beyond this, we argue that length of the socialization process impacts students' perception of given professions or career paths. It is possible that for example, entrepreneurial attitudes and intentions increase with more time spent in business related training. Similarly, number and intensity of mobility experiences increases the readiness to be geographically mobile (Dette & Dalbert, 2005; Felker & Gianecchini, 2015); which is also applicable to mobility prior to and after graduation.

**H3a.** Course of study is associated with expatriation intention.

**H3b.** Course of study is associated with entrepreneurial intention.

**H3c.** Length of study is associated with expatriation intention.

**H3d.** Length of study is associated with entrepreneurial intention.

### **Interplay of socialization and selection**

Most of previous studies on expatriation and entrepreneurship have treated attitudes as a mediator (e.g. Froese & Jommersbach, 2013; Kautonen, Tornikoski, & Kibler, 2011). However, we argue that competition orientation and career orientation are attitudes that are situated in personal characteristics. In line with the person-environment-fit models, specifically vocational personalities and work environments (Holland, 1997), we suggest that outcomes are produced by an interaction between the person and his or her environments. Lent et al. (2000) and Lent & Brown (2013) further propose that contextual factors can moderate career choice processes. We propose that selection and socialization processes reinforce each other; hence interactive effects of selection processes (competition orientation and career orientation) and socialization processes (course of study) on choice of career path. We also propose that the course of study can interact with the length a student takes on the course to enhance or diminish expatriation and entrepreneurial intentions.

**H4a.** Course of study moderates the effect of career orientation on expatriation intention.

**H4b.** Course of study moderates the effect of career orientation on entrepreneurial intention.

**H4c.** Course of study moderates the effect of competition orientation on expatriation intentions.

**H4d.** Course of study moderates the effect of competition orientation on entrepreneurial intention.

**H4e.** Length of study moderates the effects of course of study on expatriation intentions.

**H4f.** length of study moderates the effects of course of study on entrepreneurial intentions.

## Method

### Sample

Overall, 544 German university students (61.2% female) aged between 18 and 54 years ( $M=23.1$ ;  $SD=3.52$ ) were invited to participate via an online survey. The sample consisted of 168 business administration students (male=80, female=87, not specified=1), 161 psychology students (male=23, female=138), 101 lectureship students (male=20, female=81) and 114 students of engineering and natural science (male=88, female=26). Most of the participants (51%) were at the beginning or end of their study period. Of the 544 participants, 142 had been abroad for more than three months, and 92.1% had changed their location at least once ( $M = 2.22$ ;  $SD = 1.93$ ). Beyond that 65.6% of our sample had friends abroad. Only 3.9% of these students had children, and 41.1% were in a partnership or married.

### Research Instruments

All measures were administered in German language. All answers had to be given on a 6-point scale ranging from 1 (strongly disagree) to 6 (strongly agree): For further analyses, scale scores were estimated by averaging across items. When more than one item per scale was missing the whole scale was defined as missing. Means, standard deviation and inter-correlations of the variables are provided in Table 1.

*(insert Table 1 about here)*

**Mobility intentions.** Expatriate intentions were assessed with the four most valid items of a scale to measure geographic mobility readiness by Dalbert and Otto (2004). Note the original scale was modified in a way that all items were now related to the context of foreign countries ( $\alpha=.86$ ; e.g., “I can easily image myself working for a limited time abroad.”). To reflect the entrepreneurship intentions we again selected the four most valid

items from a scale to measure entrepreneurial mobility readiness by Glaser and Dalbert (2004;  $\alpha=.90$ ; e.g., “To set up a business of my own is part of my professional goals”).

**Values and attitudes.** Career orientation was operationalized by a scale from the German General Social Survey (Koch *et al.*, 1994) which comprised 4 items ( $\alpha=.75$ ; e.g., “To be successful in my profession is very important to me”). To assess competition orientation a shortened version of the Preference for the Merit Principle Scale (PMP Scale; Davey, Bobocel, Son Hing, & Zanna, 1999) was used. The PMP Scale consists of 15 items which broadly measure people’s attitude that merit ought to be used to allocate outcomes in various distribution contexts (Davey *et al.*, 1999). For our purpose, we chose those six items which were exclusively related to material benefits at the workplace ( $\alpha=.70$ ; e.g., “The effort a worker puts into a job ought to be reflected in the size of a raise he or she receives.”).

## Results

Descriptive findings of the study variables are presented in Table 1.

*(insert Table 1 about here)*

### Selection vs. socialization effects

When it comes to **selection effects** ( $H1$ ,  $H2$ ), the bivariate correlations in Table 1 indicate that career orientation was significantly and positively correlated with both entrepreneurship and expatriate intentions confirming  $H2a$  and  $H2b$ . In contrast, no substantial relations could be found for competitions orientation which contradicts our assumptions formulated in  $H1a$  and  $H1b$ .

To first test for **socialization effects** ( $H3$ ), two MANOVAs were performed with course of study (business administration/psychology/lectureship/engineering and natural sciences) and length of study (main courses/advanced courses) as between-subject factors. Dependent variables were expatriate intentions and the entrepreneurship intentions, respectively.

*(insert Figures 1 & 2 about here)*

Concerning the *expatriate intentions*, we found a significant main effect of the type of study,  $F=7.94$ ,  $p<.001$ ,  $\eta_p^2=.04$ , confirming  $H3a$ . We probed this association with post-hoc Scheffé comparisons revealed only one substantial difference: business administration students held more positive attitudes toward going abroad ( $M=4.67$ ;  $SD=1.12$ ) than teacher students ( $M=4.04$ ;  $SD=1.38$ ). Moreover, also a significant main effect of length of study

appeared,  $F=9.58$ ,  $p<.01$ ,  $\eta_p^2=.02$ , indicating that a socialization effect played a role as well as those in advanced courses report overall on higher readiness to go abroad ( $M=4.54$ ;  $SD=1.18$ ) compared to those in basic courses ( $M=4.28$ ;  $SD=1.24$ ). These findings confirm *H3c*. Finally as illustrated by Figure 1, we found a significant interaction effect of type of study by its duration,  $F=4.05$ ,  $p<.01$ ,  $\eta_p^2=.02$ ; which supports *H4e*.

In contrast to that regarding *entrepreneurship intentions*, we only found a significant main effect of the type of study,  $F=19.49$ ,  $p<.001$ ,  $\eta_p^2= .10$ , which again could indicate socialization effects. Hence *H3b* is supported, but *H3d* is not supported.

### **Predicting mobility intentions as an interplay of selection and socialization**

We conducted six moderated regression analyses (3 for each outcome) to test if selection process interacts with socialization process to enhance expatriation and entrepreneurial intentions (*H4a-H4d*). The first and second regression models (Table 2) analyze for interaction effects of type or course of study (socialization process) with career orientation (selection orientation) on both expatriation and entrepreneurial intentions. The third and fourth regression models (Table 3) show the interaction effects of type or course study (socialization process) with competition orientation (selection process). Table 4 shows results of regression models analysing for interaction effects of type of study and length of study (both socialization processes; although we argue that course of study can represent a selection effect). Regarding the course/ type of study, we group the students in two categories; business administration students vs. students of other subjects. We group the business administration students against the other students, because we presume that the nature of study specifically socializes them towards entrepreneurship and expatriation thus more likely to start a business and ready to work abroad. We calculated simple slope tests using an online tool by (Preacher, Curran, & Bauer, 2006).

*(insert Tables 2 and 3 about here)*

*(insert Figure 3 about here)*

The results of the regression equations of attitudes and type of study can be found in Tables 2 to 3. Career orientation was positively associated with both career mobility types, thus *H2a* and *H2b* are confirmed. However, competition orientation neither correlated with entrepreneurship nor expatriate intentions, hence *H1a* and *H1b* are not supported.

In addition, we found a significant interaction effect of career orientation and type of study on expatriation intention, hence *H4a* is supported. The implication of this interaction is

illustrated in Figure 3, which shows regression lines for business administration students and students from other field. Simple slope analysis revealed that the line representing the endorsement to career orientation of business administration students was not significantly different from zero ( $b=.03, n.s.$ ), but the line representing other students' career orientation was ( $b=.30, p<.01$ ). As shown, there was a positive association of career orientation and expatriate intentions for students of other fields, whereas for business administration students career orientation did not further enhance the readiness to work abroad. However, the interaction effects of career orientation and course of study were not significant, hence *H4b* is not confirmed. Similarly, the interactions effects of completion orientation and course of study on both expatriation and entrepreneurial intentions were not significant, hence *H4c* and *H4d* have to be rejected.

*(insert Table 4 about here)*

*(insert Figure 4 about here)*

As shown in Table 4, lengths of study (semester) was (marginally) negatively correlated with entrepreneurship intentions, and positively with expatriate intentions which further supports *H3c*. Moreover, as depicted in Figure 3, a significant interaction effect of lengths of study (semester) and course of study was found for explaining entrepreneurship intentions, supporting *H4f*. Simple slope analysis indicate that the regression slopes can only be meaningfully interpreted for other subjects ( $b=-.06, p<.01$ ) but not for business administration students ( $b=.02, n.s.$ ).

## **Discussion**

The labour market is more dynamic than ever, characterized by global competition and high unemployment. Consequently, a university degree is no longer a guarantee that one gets the desired job in the field of expertise or locality of convenience. Self-employment and expatriation are feasible alternatives. The purpose of our study was to examine whether choice for expatriation and entrepreneurship career paths is a result of selection or socialization processes; and whether an interaction between these process enhances readiness to expatriate and to go into business. We operationalize selection process by focusing on career attitudes, specifically competition orientation and career orientation. On the other hand, we operationalize the socialization process by focusing on the training aspects (course and length of study). By focusing on these processes, our study addresses the gap in application of selection and socialization theories, often applied separately in mobility research. The study also contributes to entrepreneurship and career mobility literature.

Results regarding career attitudes partially confirmed our assumption that selection process predicts intention to expatriate and entrepreneurial intention. Our results also reaffirm previous findings that attitudes play a role in career choices relating to entrepreneurship and expatriation (e.g. Cao, Hirschi, & Deller, 2012; Fayolle & Gailly, 2015; Froese et al., 2013). Our study contributes to this literature by showing that more specific forms of attitudes play different roles. More specifically, the results confirmed that career orientation is positively associated with both intentions to expatriate and to go into entrepreneurship. On the contrary, competition orientation does not explain intentions for any of the two career path alternatives. Thus, individuals with strong career orientations seem to perceive expatriation and entrepreneurship as feasible pathways for career development and success.

Our findings highlight the importance of career orientation in choice of career paths and proactive behaviours to achieve career success. Otto, et al. (2017) conceptualization suggests career orientation attitude represents the intrinsic desire to achieve career success. Graduates with a strong career orientation overall proactively consider various alternative career options that offer chances of career success; including entrepreneurship and expatriation. Therefore, career oriented graduates are more ready to work in foreign countries. This is one way to achieve career success, drawing from the stream of evidence suggesting that global trotting professionals are considered more successful in their careers (e.g. Bolino, 2007; Ng, Eby, Sorensen, & Feldman, 2005). Similarly, career success in terms of job satisfaction is higher among entrepreneurs than people in salaried employment (Berglund, Johansson Sevä, & Strandh, 2015). Moreover, autonomy and challenge of owning a business can be attractive for people with high career orientation to entrepreneurship.

The most intriguing finding of our study is that competition orientation is neither associated to expatriation intention nor to entrepreneurial intention. Given the competitive nature of business, it would normally follow that individuals with a competition orientation would be attracted to a career in entrepreneurship. However, our study is not the first to observe that competition is less important in the development of interest in entrepreneurial role. The competitive attitude is also reported not to relate to entrepreneurial attitudes and aspiration to establish one's own business (Schwarz, Wdowiak, Almer-Jarz, & Breitenecker, 2009). We therefore posit that whereas competitiveness may be a factor in entrepreneurial success, it does not necessary motivate individuals for entrepreneurial or expatriate work.

Concerning the socialization effects, we found significant effects of course of study on both expatriation and entrepreneurial intentions. However, length of study was only associated to expatriation intentions. Entrepreneurial education literature shows that business

socialization occurs through interactions with role models, teachers, and practical exposure which impact on knowledge, attitudes, and consequently vocational behaviour (Adamonienė & Astromskienė, 2015; Cope, 2003). Students enrolled in business related courses should have higher interest in an entrepreneurial career than their counterparts in non-business courses. Based on this assumption, we paid particular interest in establishing differences in entrepreneurial intentions by course of study. Further confirming the socialization effect, business administration students reported higher entrepreneurial intention than other students (teacher education, psychology, engineering and natural sciences). Yet it is also possible to attribute this effect to the selection process, that students with positive attitudes towards entrepreneurship are already attracted to a business related course.

To confirm that attitudes towards and intention for entrepreneurship change during the course of study, we investigated the effect of length of study (measured by number of semesters spent on the course). Nonetheless, length of study did not have impact on entrepreneurial intention. However, when considering business studies only, the length of study had significant effect. Therefore, whereas there are likelihoods of selection process (that those already interested in entrepreneurship choose business courses at college), the differential socialization of students towards business in different courses impacts on entrepreneurial intentions.

However, socialization impact is still more represented when it comes to expatriation intentions, whereby both course of study and length of study have significant effects. It is therefore probable that expatriation intentions are mostly a function of a socialization process. Except for engineering and natural sciences, students reported higher intentions to work abroad. Moreover, for business administration, engineering and natural sciences students, the intent to work abroad was higher among those in advanced stages of the course. There are two possible explanations for increase in expatriation intentions towards the end of the course. First, towards the end of the course, students have evaluated the different employment options and have ideas of where to find employment opportunities; thus have formed more concrete plans or at least intentions for exploiting those opportunities (Schwarz et al., 2009). Second, students in advanced stages of the course are likely to have higher cross-cultural or internal exposure through internship. Increasingly, students undertake internship abroad. This experience exposes them not only to employment opportunities abroad, but also chance to be sensitized and appreciate different cultures. This may explain why stay abroad during schooling time predicts future geographical career mobility behaviour (Froese et al., 2013; Ryan et al., 2013; Stumpf, 2014; Teichler & Jahr, 2001). Thus

students who have had opportunities to stay abroad during the course of study are likely to be more willing to expatriate.

The main research question relates to the interaction effects of selection and socialization on intention to expatriate or to go into entrepreneurship. The moderation analyses suggest there is no interactional effect between competition orientation and course of study on both expatriation and entrepreneurial intentions. Conversely, we find interaction effects of career orientation and course of study on expatriation intentions. For non-business studies career orientation enhances expatriate intentions, whereas for business studies career orientation was not associated with expatriate intentions. Expatriation intentions for business students are relatively stable at both low and high levels of career orientation. This once more points to the selection aspects of course of study, that individuals who chose business as course of study already have positive attitude towards and ready to work internationally. The globalized nature of business environment necessitates business oriented students to be willing to work abroad even before they enrol for college studies. Whereas we consider course of study as socialization aspect, we have noted above that it also portrays selection effect to some extent. On this basis, we assessed its interaction effects with length of study on entrepreneurial intention. Our results indicate that entrepreneurial intentions increase over time for business students but not for non-business students. Therefore, interaction effects between selection and socialization are confirmed; (1) career orientation with course of study on expatriation effects, (2) course of study with length of study on entrepreneurial intention.

### **Limitations**

This study has at least two shortcomings, which are critical for two reasons. First, the design was cross-sectional. Furthermore, our data were gathered by self-reports. As a consequence, we cannot rule out that shared method variance between our investigated variables inflated the association between the variables (e.g. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We therefore take caution in affirming our results with total certainty. Future studies could consider a longitudinal approach to track changes in expatriation and entrepreneurial intentions right high school before students choose university courses, which could allow for longitudinal examination of cause of choice of study and how career path preferences change at different levels of study. A cross-cultural sample application might also be limited given that culture plays an important role in vocational attitudes and socialization. In addition, a wider range of subjects for example legal, vocational and medical or health studies should be considered in future studies. Furthermore, we investigated mobility

intentions, but not mobility behaviour. Although studies have found a relationship between the two (e.g. Brett & Reilly, 1988) as well as entrepreneurial intention and entrepreneurship entry (e.g. Fayolle, Liñán, & Moriano, 2014), the impact of willingness to move on actual job transfer decisions is unclear. Our study has focused on limited indicators of selection. Future studies could benefit from considering a wider range of selection aspects such as openness, flexibility, independence, dispositional optimism, and uncertainty tolerance.

### **Conclusion and Practical implications**

Our results suggest that both selection and socialization processes play essential roles in deciding for a career in entrepreneurship or expatriate work. Regarding selection effects, we have specifically demonstrated that career orientation is important for entrepreneurial intention and readiness to work abroad. Concerning socialization effects, our results demonstrate that both course of study and length of study impact on expatriation intention, but only course of study has impact on entrepreneurial intentions. This drew our attention to the selection aspects of course study. Towards this, our findings reaffirm the uniqueness of entrepreneurs (Baluku, Kikooma, & Kibanja, 2016; Henderson & Robertson, 2000), which suggests that entrepreneurial intention is predominantly a function of a selection process; while expatriation intention is a function of both selection and socialization processes. However, both expatriation and entrepreneurial intentions are influenced by the interaction between socialization and selection processes.

Given the increased internationalization of work, our results highlight the importance of orienting studies towards an open mobility attitude. Protean attitudes as well as so-called happenstance skills are useful school-to-work transition (Yang, Yaung, Noh, Jang, & Lee, 2017), hence university teachers should strengthen these attributes among their students through various learning activities. For example, universities could emphasize international internship programs to enable students gain experience of working abroad, which in turn increases flexibility for expatriate work. This may be important in enhancing career development and success. In some situations, students are able to find attractive job opportunities in foreign countries where they have studied (Arthur & Flynn, 2011) or had internship exposures.

Moreover, with increased unemployment and increased demand for services, entrepreneurship is an important opportunity for career development not only for business students, but for all professions. Therefore, universities could include a business related curriculum, or at least entrepreneurship mentoring program for all students. Our findings also

have implications for career counselling practice. Particularly, our results suggest that career orientation should be promoted during career education and counselling for non-business students. For business students, whereas socialization during study influences entrepreneurial and geographical mobility intentions, the selection process also plays a role. Thus their entrepreneurial intentions can be predicted and supported early during the education process.

Finally, our findings have implication for future mobility research. We have specifically showed that competition attitude is not associated to expatriation and entrepreneurial intention. Previous research (e.g. Schwarz et al., 2009) has also demonstrated that competition attitude is not related to entrepreneurial intention. Yet the entrepreneurial job is competitive in nature. The role of competitive attitude and competition competency in entrepreneurship certainly requires more research attention. For example, how competition orientation influences entrepreneurial performance, or whether entrepreneurs need a competitive attitude, given that it does not shape entrepreneurial intention; and how does competitive competence develop among nascent entrepreneurs.

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**Table 1.** Descriptive findings and correlation of the study variables

Measure		<i>N</i> Items	<i>M</i>	<i>SD</i>	$\alpha$	<i>N</i>	(A)	(B)	(C)	(D)
Career orientation	(A)	4	4.14	0.87	.74	543	1			
Competition orientation	(B)	6	4.38	0.73	.70	515	.10*	1		
Entrepreneurship intention	(C)	4	3.62	1.35	.90	535	.31**	.05	1	
Expatriate intention	(D)	4	4.14	1.22	.86	540	.18**	.03	.19**	1

**Table 2.** Regression analyses of moderator effects of business administration on the effects of career orientation on the outcome variables

Predictors	Entrepreneurship intention			Expatriate intention		
	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	<i>B</i>
Step 1						
Constant	1.66	0.27		3.39	0.25	
Career orientation	0.45	0.06	.29**	0.22	0.06	.16**
Business administration	0.34	0.12	.12**	0.31	0.11	.12**
$\Delta R^2$	.11			.05		
Step 2						
Constant	1.65	0.27		3.43	0.25	
Career orientation	0.45	0.07	.29**	0.22	0.06	.16**
Business administration	0.33	0.12	.11**	0.34	0.11	.13**
Career orientation × Business administration	0.04	0.07	.02	-0.13	0.06	-.09*
$\Delta R^2$	.00			.01		
Total $R^2$	.11			.05		
<i>N</i>	533			539		

Note: \* $p < .05$ , \*\* $p < .01$ ; two-tailed. Business administration: 0 = other subjects, 1 = business administration

**Table 3.** Regression analyses of moderator effects of business administration on the effects of competition orientation on the outcome variables

Predictors	Entrepreneurship intention			Expatriate intention		
	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	<i>B</i>
Step 1						
Constant	2.95			4.00		
Competition orientation	0.11	0.08	.06	0.07	0.07	.04
Business administration	0.50	0.13	.17**	0.39	0.12	.15**
$\Delta R^2$	.03			.02		
Step 2						
Constant	2.98			4.00		
Competition orientation	0.11	0.08	.06	0.07	0.08	.04
Business administration	0.51	0.13	.17**	0.39	0.12	.15**
Competition orientation × Business administration	0.07	0.06	.05	0.02	0.05	.01
$\Delta R^2$	.00			.00		
Total $R^2$	.04			.02		
<i>N</i>	508			512		

Note: \* $p < .05$ , \*\* $p < .01$ ; two-tailed. Business administration: 0 = other subjects, 1 = business administration

**Table 4.** Regression analyses of moderator effects of business administration on the effects of semester on the outcome variables

Predictors	Entrepreneurship intention			Expatriate intention		
	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	B
Step 1						
Constant	3.64	0.11		4.09	0.10	
Semester	-0.04	0.02	-.08 <sup>†</sup>	0.05	0.02	.12**
Business administration	0.48	0.13	.16**	0.33	0.11	.13**
$\Delta R^2$	.03			.03		
Step 2						
Constant	3.65	0.11		4.09	0.10	
Semester	-0.04	0.02	-.08 <sup>†</sup>	0.05	0.02	.11**
Business administration	0.45	0.13	.15**	0.31	0.11	.12**
Semester × Business administration	0.12	0.06	.09*	0.08	0.05	.07
$\Delta R^2$	.01			.00		
Total $R^2$	.04			.04		
<i>N</i>	535			540		

Note: \* $p < .05$ , \*\* $p < .01$ ; two-tailed. Business administration: 0 = other subjects, 1 = business administration

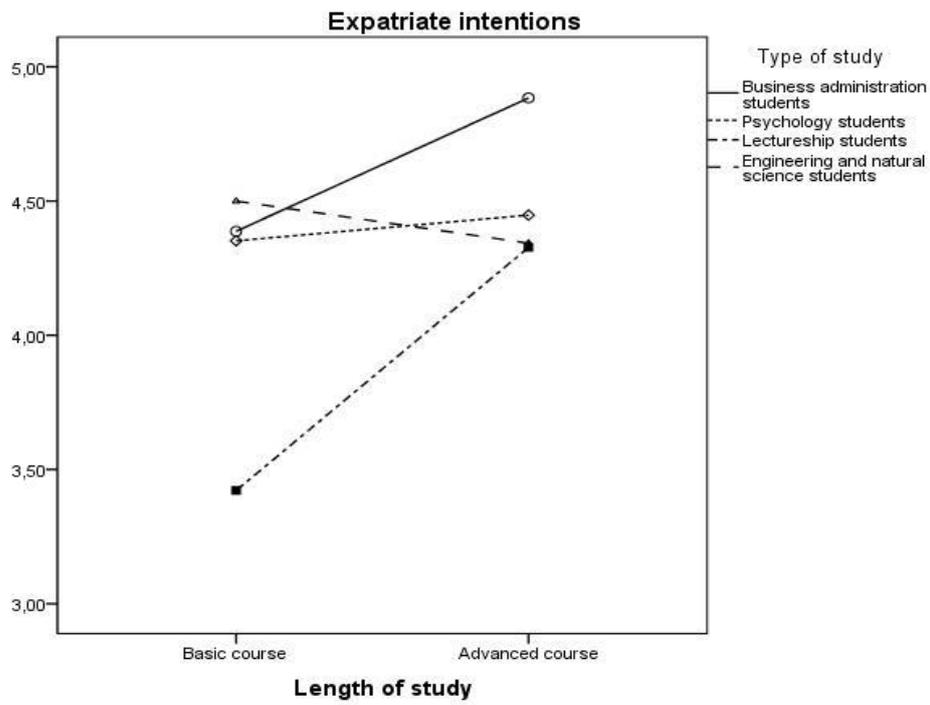


Figure 1. Selection and socialization effects on expatriation intentions

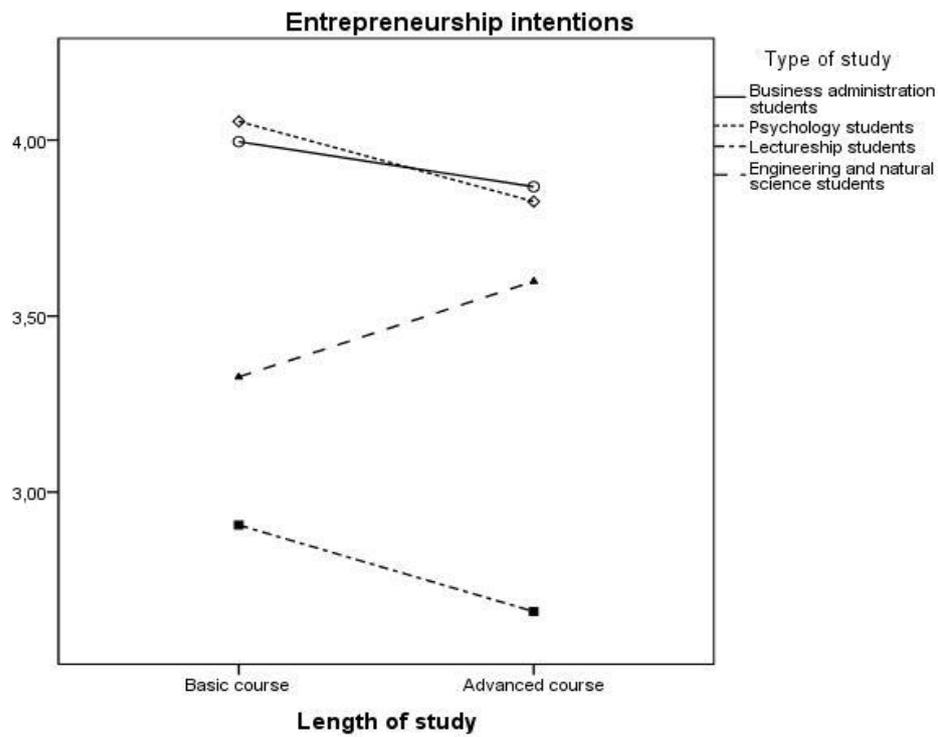


Figure 2. Selection and socialization effects on entrepreneurial intentions

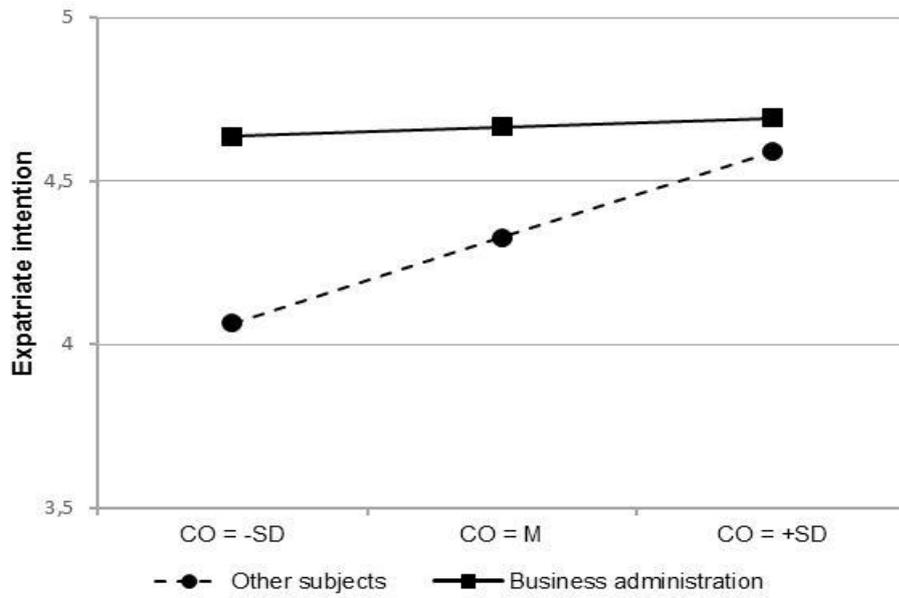


Figure 3. Interaction between career orientation (CO) and type of study (business administration vs. other subject) predicting expatriate intention

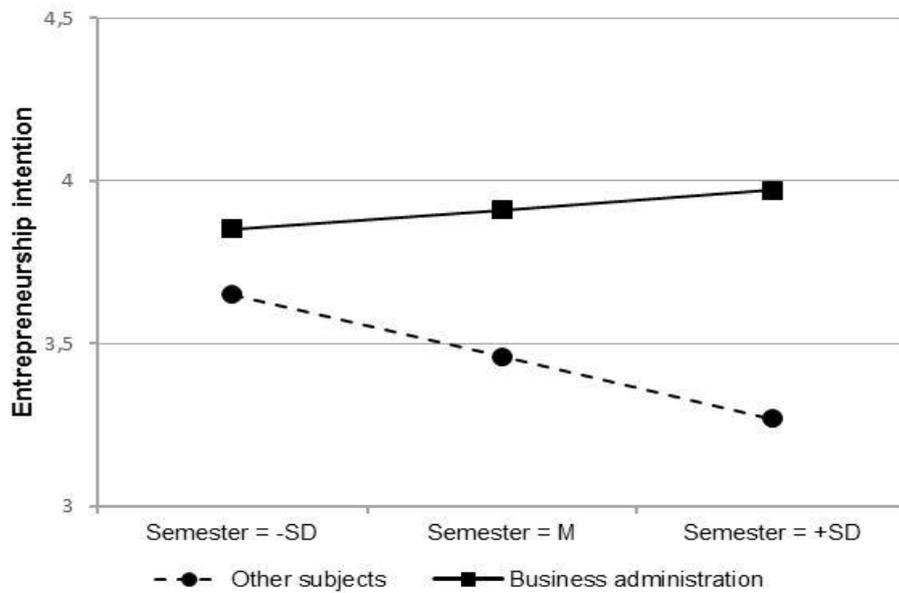


Figure 4. Interaction between length of study period (semester) and type of study (business administration vs. other subject) predicting entrepreneurship intention

**Manuscript #3**

**Impact of Personal Cultural Orientations and Moral Potency on Self-Employment  
Intentions: The Moderating Role of Cognitive Styles**

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### **Abstract**

Self-employment presents a viable work opportunity for the unemployed. However, not all unemployed individuals are attracted to self-employment. Based on the assumptions of the situated meta-cognition model of entrepreneurial mind-set and theory of planned behaviour, we explain why unemployed individuals may evaluate self-employment as an attractive opportunity for career progression. Using a sample of 227 unemployed young people from East Africa, we examine the interactional effects of cognitive style, personal cultural orientation, and moral potency. Our findings show that unemployed young individuals with an adaptive cognitive style have higher self-employment intentions compared to their counterparts with intuitive or analytic styles. Moderation analyses showed that the effects of risk aversion and moral potency on self-employment intentions are conditioned by cognitive styles. Practical implications of these findings are discussed.

#### **Key words:**

Cognitive adaptability, cognitive styles, cultural orientation, entrepreneurship, independence, moral potency, risk aversion, self-employment

## INTRODUCTION

The continuous increase in youth unemployment especially in developing countries is a great challenge for economies; and individuals as well. It has a net effect on the ability of individuals and countries to develop. Given the slowed economic progression, self-employment is perhaps the most available and viable employment opportunity; for new graduates to avoid unemployment right from the start, but also for the formerly employed to return to work. It does not only provide an employment opportunity, but also the resulting enterprises contribute to economic development (Anyanwu, 2014; Fritsch and Wyrwich, 2014; Williams et al., 2013). Self-employment in some communities is the biggest provider of jobs (Falco and Haywood, 2016; Gindling and Newhouse, 2014). Hence self-employment is often used as a strategy for promoting entrepreneurial activity and enhancing economic development (Dana, 1995; Dana, 1996; Peredo *et al.*, 2004; Peredo and McLean, 2010).

Previous research has showed that contextual factors including unemployment and changing labour market dynamics push individuals into self-employment (Abada et al., 2014; Clark and Drinkwater, 2000; Falter, 2005; Nelson, 2016; Oh, 2008). However, the decision to become self-employed is on the other hand facilitated by several personal factors as has been demonstrated in different models of entrepreneurial intentions such as the theory of planned behaviour (Ajzen, 1991) and the model for entrepreneurial socialization and organization formation (Starr and Fondas, 1992). Both of these models, to some extent recognize the role of contextual aspects. Of interest in the present study is the role of culture in predisposing individuals to entrepreneurial careers. In the Weberian sense, entrepreneurial potential and behaviour seem to be situated in the cultural domain (Dana, 1995; Dana, 1996). Considering the interplay between one's cognitive attributes and culture, the present study examines the impact of personal normative beliefs and cognitive styles on formation of self-employment intentions.

The assumption that unemployment, changing nature of labour force, and labour market dynamics increase rates of self-employment is particularly true for developing countries. For example, sub-Saharan countries have predominantly young populations (Ashford, 2007); where all graduates cannot be absorbed by the current job openings. In addition to unemployment as a stimulator, many young people are likely to pursue a career in self-employment driven by the increasingly slim chances to get the desired job (Gindling and Newhouse, 2014). However, this does not comprehensively explain the choice of self-

employment. We argue that in the context of unemployment, personal factors still play a major role in formation of self-employment intentions. This argument is based on empirical evidence that unemployment actually has a small effect on entry into self-employment (Patel and Thatcher, 2014). Hence known predictors of behavioural intentions such as enterprising culture, expected earnings, attitudes, normative beliefs, competence and need for autonomy in work (Abada et al., 2014; Dana, 1996; Goetz and Rupasingha, 2013; Kautonen et al., 2015; Kolvereid, 2016; Vinogradov et al., 2013; Wang et al., 2012) still play a major role in motivating individuals into self-employment in the context of unemployment.

We particularly focus on the interactive effect of personal normative beliefs (risk aversion and independence orientations, as well as moral potency) and cognitive styles on development of intentions. We posit that although self-employment entry in the context of unemployment is reactionary (Walker and Webster, 2007), the decision to become self-employed is based on a cognitive process. Therefore, the unemployment situation could be a trigger for individuals to adopt their cognition to the most available employment option (self-employment). This, in addition to favourable cultural beliefs, increases intention for self-employment. Favourable cultural beliefs particularly enhance the ability to identify and respond to entrepreneurial opportunities (Dana, 1996). We therefore base our study on the situated meta-cognition model of entrepreneurial mind-set (Haynie et al., 2010) and theory of planned behaviour (Ajzen, 1985, 1991) to explore the role of cognitive styles (as a moderator) in development of self-employment intentions in the context of unemployment. Based on planned behaviour theory, we introduce the concept of moral potency (which is related to control beliefs, as well as ethical attitudes) to the study of entrepreneurial intentions. The perceived moral challenges involved in business transactions and certain business opportunities can diminish intentions for self-employment. On the other hand, some individuals chose a career in self-employment because it offers an opportunity to make a positive impact on communities (Dana, 1996), which could be evaluated as a moral pull to entrepreneurial activity. We posit that an adaptive cognition in the context of unemployment negates the negative impact of risk aversion and moral challenges on intentions. We particularly base our assumptions on the proposition from the situated metacognitive model of the entrepreneurial mind-set that adaptability of cognitive approaches to entrepreneurial tasks leads to greater outcomes (Haynie, Shepherd, Mosakowski, and Earley, 2010). We therefore extend the application of cognitive adaptability to self-employment intentions, particularly in the context of unemployment; and expect that unemployed individuals with

adaptive cognitive style (able to combine intuition and analysis) are more likely to consider self-employment.

The study was conducted in two East African economies, Uganda and Kenya, with high youth unemployment rates. Evidence shows that Africa has a bigger percentage of the unemployed youth, more than any other continent (Anyanwu, 2014). In the absence of a strong industrial base to provide stable jobs, governments and development partners have placed more emphasis on self-employment as a major strategy for reducing unemployment, by means of providing start-up incentives and technical training programs (Blattman et al., 2013; Cho and Honorati, 2014; Bruton et al., 2015). While these interventions have yielded amazing results in increasing the number of young people entering self-employment (Blattman et al., 2013; Cho and Honorati, 2014), the increasing numbers of unemployed youths suggests that focus should be beyond financial incentives and basic skills trainings; and probably the efforts to promote self-employment should be intensified.

Recent research has suggested that the widely known predictors of entrepreneurial intentions may not apply to some groups of people (Dheer and Lenartowicz, 2016). There are well known and widely applied models, for example the planned behaviour theory which explains 30 – 59% of entrepreneurial intentions (e.g. van Gelderen et al., 2008; Kautonen et al., 2015), and self-determination (Deci and Ryan, 2011; Peco et al., 2006). Populations such as refugees and the unemployed may not necessarily be inherently interested in self-employment. Previous studies, for example, have indicated that for some self-employed people, self-employment was not their preferred career (Dana, 1996). However, the challenge of being unemployed may trigger cognitive approaches that lead to positive evaluation of self-employment; hence not every unemployed individual does perceive self-employment as a feasible employment option. We therefore adopt a cognitive approach (combining assumptions from situated meta-cognitive model of entrepreneurial mind-set and theory of planned behaviour) to examine the role of cognitive styles to self-employment intentions. Entrepreneurial cognition research has been praised for its contribution understanding of entrepreneurial behaviour (Haynie & Shepherd, 2009; Mitchell et al., 2002). Thus understanding how people in different contexts think or process information might be an important step in understanding their perspective of entrepreneurial activities and progress (Dheer and Lenartowicz, 2016). In the present study, we emphasise the impact of personal normative beliefs and cognitive styles in development of intentions.

## **THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT**

To study self-employment motivations in challenging situations such as economic recession and unemployment, researchers have focused on what is classified as push factors (Clark and Drinkwater, 2000; Nelson, 2016; Patrick et al., 2016). This perspective proposes that in such contexts, individuals are compelled into self-employment. However, even in these circumstances, some individuals are able to perceive opportunities and respond to those opportunities, while others do not (Dana, 1996). Therefore, although difficult socio-economic circumstances may provide a push into an entrepreneurial activity, individuals still take a conscious choice to become self-employed or not to. This is in line with the debate on whether the will is free from being caused, and what causes the will. In Monroe, Dillon, and Malle (2014)'s study, judgment of free will was strongly predicted by psychological capacities including intentionality, choice and being the sole cause of one's action; thus affirming the role of cognitive processes. In line with this, the theoretical treatise below portrays intentions for self-employment as a function of individual's cognitive processes and contextual influences. We argue that in the context of high unemployment, not every unemployed individual will be pushed into self-employment. But rather those with adaptive cognition and positive personal beliefs towards entrepreneurship will develop intentions for self-employment.

Extant literature shows that entrepreneurial intentions and behaviours are a result of a unique entrepreneurial cognitive approach, suggesting an entrepreneurial mind-set, one that makes entrepreneurs unique (Dheer & Lenartowicz, 2016; Haynie et al., 2010). Accordingly, individuals with an entrepreneurial mind-set have the ability to perceive venture creation opportunities in their environment (Arora, Haynie, & Laurence, 2013; Mitchell et al., 2007). Hence certain cognitive processes, elicited by contextual cues, enable individuals with an entrepreneurial mind-set to identify opportunities and develop the desire to start ventures. Most recent cognitive research on entrepreneurial behaviour particularly emphasises metacognition (Arora et al., 2013; Dheer & Lenartowicz, 2016; Haynie & Shepherd, 2009). Our assumptions and hypotheses are partly based on assumptions of the situated metacognitive model of entrepreneurial mind-set (Haynie et al., 2010). The model particularly highlights the essentiality of adaptive cognitions to entrepreneurial decisions in uncertain contexts, which is facilitated by a metacognitive process. Metacognition involves individuals being aware of themselves and the context and the use of feedback from the

environment to facilitate adaptable cognition (Haynie et al., 2010; Haynie & Shepherd, 2009); thus enabling individuals to consciously contemplate different options (Haynie & Shepherd, 2009) resulting into improved performance.

Whereas the situated meta-cognition model of entrepreneurial mind-set was developed to explain entrepreneurial decision-making, and further illustrates how cognitive adaptability is situated in metacognition; we concern ourselves with the proposition that cognitive adaptability is associated with phenomenal performance on entrepreneurial task (Haynie, Shepherd, & Patzelt, 2012; Haynie et al., 2010). However, we apply this model to intentions. The process of intentions formation and entry decisions involve deployment of cognitive processes and abilities; moreover, the context of such decisions is equally complex like that of an established entrepreneur contemplating creating a new venture. Young people today must make vocational decisions in the context of heightened unemployment and unpredictable dynamics in the labour market; which requires awareness of these realities. Hence based on the idea of adaptive cognition as central to entrepreneurial task performance, we posit that adaptability of cognitive style should be helpful in unbiased evaluation of the self-employment option, leading to higher intention.

We posit that cognitive style moderates the personal normative beliefs including orientation towards independence and risk aversion; and moral potency on self-employment. There is vast literature on impact of independence and risk aversion on entrepreneurship. Moral potency is related to whether self-employment poses moral challenge or champions a moral cause; and hence a subject of controllability. Based on theory of planned behaviour (Ajzen, 1985, 1991), research has confirmed that such attitudinal and competence factors account for big variance in entrepreneurial intentions (Gelderen et al., 2008; Kautonen et al., 2013, 2015). We conceptualize that personal cultural orientation towards independence and risk aversion are personal normative beliefs; while moral potency is related to control beliefs in line with the planned behaviour model. The theory suggests that behaviour is a function of intention; which is also influenced by attitudes towards the given behaviour, subjective norm and perceived behavioural control. These cultural orientations portray the normative standards that an individual considers personally important (Sharma, 2010), hence have potential to influence behavioural attitudes and subsequently intentions. Similarly, moral potency portrays both the ethical attitude towards a behaviour, as well as the individual's ability to behave ethically in a given context and to achieve morally acceptable goals (Hannah and Avolio, 2010). Based on planned behaviour theory, we content that individual's

personal beliefs and ethical evaluation of the business behaviour (as well ethical outcomes of self-employment) impact on decision to become self-employed. We also hypothesize that this impact is conditioned by cognitive style. The cognitive continuum theory suggests cognitive style is a bipolar construct, with intuition at one end of the continuum and analysis at the other (Allinson and Hayes, 2012; Hammond et al., 1987). Intuitive style involves making “affectively charged judgments that arise through rapid, non-conscious, and holistic associations” (Dane and Pratt, 2007); whereas analytical style involves ordered and linear information processing. Hence adaptive style involves blending intuition and analysis (Allinson and Hayes, 2012).

### **Cognitive Styles and Self-Employment**

The construct of cognitive styles has emerged as one of the major domains in efforts to understanding the entrepreneur from the cognitive perspective. Cognition is relevant to understanding issues such as who becomes an entrepreneur, how do entrepreneurs think, how do they recognize opportunities that others fail to see, what motivates the entrepreneur (Baron, 1998; Byrne & Shepherd, 2015; Carland, Carland, & Stewart, 2015; Carsrud & Brännback, 2009; Mitchell et al., 2007). Cognitive styles are stable, pervasive and bipolar individual differences in perception, thought, problem solving, learning and relating to others (Riding and Sadler-Smith, 1997; Riding and Rayner, 2013; Stephen and Riding, 1997; Witkin et al., 1977). They involve individuals’ preferences in obtaining, processing, evaluating, representing and using information (Allinson, Chell, and Hayes, 2000; Riding and Rayner, 2013). Cognitive styles are conceptualized to concern the form rather than content of cognitive activities (Armstrong and Hird, 2009; Witkin et al., 1977) since the focus is generally on information processing (Doyle et al., 2002).

Kozhevnikov, Evans, and Kosslyn (2014) and Riding and Rayner (2013) provide a summary of categorizations of cognitive styles that are relevant to entrepreneurial research. Regardless of the specific taxonomy, research indicates that cognitive styles have an impact on entrepreneurial competences. First, they influence preferred ways of learning, information gathering and processing, decision-making (Juanchich et al., 2016; Chang et al., 2016; Kozhevnikov et al., 2014; Dewberry et al., 2013); which are all important for entrepreneurial roles. Consequently, cognition affects perception of entrepreneurial environment and the intention to engage in entrepreneurial activities (Hadjimanolis, 2016). Second, these effects on cognitive tasks have implications for innovative behaviour (Kozhevnikov et al., 2014;

Armstrong et al., 2012; Wu et al., 2014; Carnabuci and Dioszegi, 2015), opportunity recognition, planning and resource mobilization (Allinson et al., 2000; Baron, 2004; Kickul et al., 2009), entrepreneurial self-efficacy and confidence in forecasting (Poore et al., 2014; Kickul et al., 2009), and risk tolerance (Barbosa et al., 2007). In addition, cognitive styles influence entrepreneurial behaviour via their impact on entrepreneurial attitudes (Urban, 2012) as well as entrepreneurial intentions (Barbosa et al., 2007; Molaei, Reza, Hasan, & Yadollahi, 2014).

The above effects on business competency suggest that understanding individuals' cognitive styles is important step for predicting their chances of becoming self-employed (Armstrong and Hird 2009; Barbosa et al., 2007; Hmieleski and Corbett, 2006; Ahmad et al., 2014) and growing the enterprise (Dutta and Thornhill, 2014; Knockaert et al., 2015). On the overall, extant literature tends to favour an intuitive cognitive style as central to an entrepreneurial thinking and decision making, specifically regarding recognising and exploiting business ideas and opportunities (Armstrong and Hird, 2009; Barbosa et al., 2007; Molaei et al., 2014; Nandram, 2016; Sadler-Smith, 2015). On the other hand, the situated metacognitive model of the entrepreneurial mind-set underlines adaptability of cognitive processes for superior performance of entrepreneurs (Haynie et al., 2010). In line with this theoretical perspective, we posit that an adaptive cognitive style is more suited to entrepreneurial tasks. Towards this direction, previous research shows that balancing between intuitive and analytic styles or linear and nonlinear styles enhances innovative behaviour (Ettlie et al., 2014). Similarly, Sommer (2013) suggests that both intuitive and analytic styles are necessary and should be emphasised in entrepreneurship education.

Despite the increase in amount of studies on cognitive styles and entrepreneurial behaviour, Armstrong et al. (2012) observe that this is still an under researched area in entrepreneurship. They particularly call for studies on cognitive styles in relation to the person-environment. Towards this call, the present study assesses the impact of cognitive style on entrepreneurial (self-employment) intention, focusing on unemployed young persons. We specifically contend that an adaptive cognitive style is superior to other cognitive styles in formation of intentions to become self-employed among the unemployed. Unemployment is an uncertain and complex period for an individual, which in accordance with the situated metacognitive model, is associated with greater metacognitive awareness (Haynie et al., 2010) thus facilitating adaptive cognition. Such cognitive approach enables

individuals to carefully evaluate the employment situation and their chances of getting a job (or the desired job) and the feasibility of creating a self-employment venture.

*H1a:* Unemployed youths with an adaptive cognitive style have higher intentions for self-employment than those with intuitive and analytic styles.

### **Cultural Orientations and Self-employment Intentions**

The debate on the association between culture and entrepreneurship is an old one, but continues to interest several scholars. Whereas such scholarly efforts have generated good frameworks to understand culture, there are also unanswered questions with regard to the concrete roles of culture in entrepreneurship. Frederking (2004) observed that the role of culture in business tends to vary among societies. Such variations include how norms and values are applied to economic activities. Cultural values and norms that encourage, for instance, wealth accumulation increase individuals' participation in entrepreneurial activities (Dana, 1997). Specifically, culture influences entrepreneurial cognition, intentions and behaviour (Freytag and Thurik, 2010; Liu and Almor, 2016; Shinnar et al., 2012). Regarding cognition aspects, culture is a significant factor in the process of recognizing and responding to entrepreneurial opportunities, as well as constraints attached to the available opportunities (Dana, 1996). Regarding behaviour and competency, cultures that promote prudence or frugality are associated with entrepreneurial opportunity seeking abilities (Dana, 1995; Minkov and Hofstede, 2012). Culture further influences the type of self-employment individuals engage in, that is whether active or passive, opportunistic or reactive entrepreneurship (Dana, 1995; Dana, 1996). Moreover, cultural values and norms in some societies define the entrepreneurial activities and goals that are permissible for individuals to pursue, as well as the methods of trade (Dana, 1997).

Previous research efforts have been directed towards identifying the kind of cultures in which entrepreneurship thrives. The general consensus in these studies particularly informed by Hofstede's model (Franke et al., 1991; Minkov and Hofstede, 2011) is that an entrepreneurial culture is characterized by individualism, masculinity, low power distance, low uncertainty avoidance and long-term orientation (Hamilton, 2013; Hofstede & Minkov, 2010; Tlaiss, 2014; Vinogradov & Kolvereid, 2007; Wennekers, Thurik, Van Stel, & Noorderhaven, 2010). These dimensions of culture have been found to relate to entrepreneurial competencies including autonomy, innovativeness, and risk-taking (Kreiser et al., 2010; Lee and Peterson, 2000; Omerzel and Omerzel, 2016; Rauch et al., 2013). However, evidence suggests that not all these dimensions are important at all stages of

enterprise formation and growth. Previous research (e.g. Mitchell, Smith, and Seawright, 2000; Wennberg, Pathak, and Autio, 2013) shows that individualism and risk-taking are the orientations particularly seminal at the entry phase. In line with recent calls to treat culture as a moderator in entrepreneurship studies (e.g. Rauch et al., 2013), we examine the interaction effect of cognitive styles with these two cultural orientations on self-employment intentions.

Studies on risk aversion have adopted either an attitudinal or cultural conceptualization. Regardless of the approach used, there is concurrence in the findings that high risk tolerance is associated with entrepreneurial intentions and entry (e.g. Brachert, Hyll, & Titze, 2014; Brown, Dietrich, Ortiz-Nuñez, & Taylor, 2011; Hu, 2014; Skriabikova et al., 2014). Evidence shows that risk-averse individuals have preferences for stable earnings (Di Mauro and Musumeci, 2011); yet earnings in self-employment fluctuate greatly. However, in the complex context of unemployment and uncertainty in the labour market, the negative effect of risk aversion on entrepreneurial intention can be lessened by cognitive adaptability. In the development of the situated metacognitive model of entrepreneurial mind-set, Haynie et al. (2010) make a strong case for the interaction between the context and entrepreneurial motivation. Accordingly, entrepreneurial action, which is linked to development and deployment of a specific metacognitive strategy, is a function of the interaction between the environment and the entrepreneurial motivation. On this basis, unemployed individuals with higher risk tolerance will most likely view self-employment as a viable employment option. We also posit that in the context of unemployment and uncertainty about success in job search, adaptive cognition can increase self-employment intentions even for risk-averse individuals. We therefore hypothesize a significant interactional effect of cognitive styles and risk aversion cultural orientation on self-employment intention. Previous research suggests that risk averse unemployed people have the potential to at least enter self-employment as necessity entrepreneurs. Block, Sandner, and Spiegel (2015) observed that individuals low on risk attitudes are less likely to be driven by opportunity or innovation, but rather tend to become necessity entrepreneurs.

*H2a:* Risk aversion is negatively related to self-employment intentions.

*H2b:* The relationship of risk aversion and self-employment intentions is moderated by cognitive style.

Independence orientation, or individualism, is widely studied as autonomy in entrepreneurial attitudes research. As a cultural orientation, individualism implies that people favour loose ties with other members of the society, and prefer to act autonomously (Sharma,

2010). Changing career dynamics such as increased need for self-reliance is driving individuals to career options that offer high levels of independence. Consequently, in reference to self-determination theory (Deci and Ryan, 2011), satisfaction of need for autonomy is an important motivator for self-employment. Independence is one of the expected entrepreneurial outcomes (Croson & Minniti, 2012; Douglas & Shepherd, 2002). However, the independence needs in relation to work vary among individuals (van Gelderen and Jansen, 2006). Whereas some individuals prefer work where they can have independence in decision making, others prefer self-employment because they want to be their own bosses yet doing work that is inherently interesting to them.

In the context of unemployment and uncertainty over chances of finding the desired job, an adaptive cognitive style would further enhance self-employment intentions. The situated meta-cognitive model of entrepreneurial mind-set advocates for cognitive adaptability (Haynie et al., 2010), while the planned behaviour model suggests that normative beliefs impact on behaviour intentions (Ajzen, 1991). In the present study, we propose that personal norms interact with cognitive styles (particularly adaptive style) to enhance self-employment intention among the unemployed. In this direction, previous research has posited that some situations can push even individuals from less entrepreneurially oriented cultures, or individuals who are not interested in an entrepreneurial activity to become self-employed (Dana, 1995; Dana, 1996). We propose that this is in particular possible when individuals are adaptive in their cognitive styles; which allows them the intuition to recognize opportunities but also to evaluate the possible constraints and positive outcomes of entrepreneurial activities as opposed to the challenges of remaining unemployed.

*H2c:* Independence orientation is positively related to self-employment intentions.

*H2d:* The relationship of independence orientation and self-employment intentions is moderated by cognitive style.

### **The Role of Moral Potency**

Moral potency is “a psychological state characterised sense of ownership over the moral aspects of one’s environment, reinforced by efficacy beliefs in the capability to act to achieve moral purpose in that domain, and the courage to perform ethically in the face of adversity and persevere through challenges (Hannah and Avolio, 2010: pp. 291). This definition of moral potency as a control competence fits the description of control beliefs in the planned behaviour theory (Ajzen, 1985, 1991). However, it also indirectly depicts an individual’s ethical attitude towards a respective behaviour. Allegiance to the specific moral

standards of a given society can promote or discourage entrepreneurial behaviour, or define the nature of business and medium of transacting (Dana, 1997).

Moral competence arguably represents some form of intelligence: “Moral Intelligence”. This is considered the newest intelligence construct after being popularized by Kiel and Lennick (2005) and Lennick and Kiel (2006). However, Boss (1994) had already used the construct in his article “the autonomy of moral intelligence” in which he contended that moral intelligence is a genuine and one of the distinct autonomous intelligences; which denotes individual’s ability to apply universal human principles to personal values, goals and actions (Lennick & Kiel, 2007, 2011). It involves moral reasoning that transcends into respect for values that are inherent in oneself and others (Boss, 1994) and is enacted through the virtues of truth, love, caring, empathy, and justice as well as acting based on one’s moral decisions (Boss, 1994; Clarcken, 2009). This competence is founded on values and comes to play when personal or business goals do not align with universal or core principles, only directed towards doing good (Lennick and Kiel, 2011). In the present study, we investigate the interactive effects of this moral capability with cognition styles on self-employment intention in the context of unemployment.

Like other members of society, or even more than the others, the moral behaviour of people in the business arena is of paramount concern. Particularly, the self-employed in an entrepreneurial sense are required to be imaginative, novel, and sensitive (Buchholz and Rosenthal, 2005; McVea, 2009) which should sensitize them to morals. However, these very requirements and other business needs engulf entrepreneurs in situations of complex ethical dilemmas, where they are most likely to be deceptive or break rules and promises in order to generate ideas or exploit opportunities (McVea, 2009; Brenkert, 2009). Although being moral is often complex and difficult (Clarcken, 2009). Brenkert (2009) contents that accepting the rule breaking behaviours of entrepreneurs with labels such as tricksters, crafty competitors and clever entrepreneurs (P. 449) is detrimental. These scenarios and behavioural calls justify Lennick and Kiel (2006)’s suggestion that the greatest challenge moral potency addresses is, knowing what is right or wrong versus doing what is right or wrong. Hence, from the attitude point of view, individuals who perceive behaviour in business setting as immoral are less likely to be willing to go into self-employment. On the other hand, individuals with a positive regard about the outcomes of self-employment and believe that they can behave ethically in the business arena (competence point of view) are likely to find self-employment more attractive than staying unemployed. In addition, some individuals are attracted to self-

employment because it offers an opportunity to make noble social contributions to the social and economic development (Dana, 1996).

Available empirical evidence suggests that morality is a fundamental issue in running of an enterprise, more especially in business leadership, recognition of opportunities and manner of transacting (Balog et al., 2014; Lennick and Kiel, 2006; Sivanathan et al., 2000; Sivadas et al., 2002). According to Lennick and Kiel, moral behaviour implies doing what is right for oneself and others, which is valid for business situations. Therefore the perception of the moral qualities of the business owners or managers is important to the public (Lennick and Kiel, 2006; Wojciszke, 2005). Except for social entrepreneurs who are perceived to espouse venerated moral standards (Bacq et al., 2016), the general perception is that morals are bankrupted in the business space (Anderson and Smith, 2007; Brenkert, 2009). The likely result of such generalized misconceptions of entrepreneurial behaviour is that individuals with high moral imperative may shy away from pursuing a career in self-employment. However, we presume that individuals with adaptive cognition will more likely evaluate self-employment as a more morally right alternative, than remaining unemployed; after all, it offers an opportunity to make positive contribution to society.

There is an emerging body of knowledge that the cognitive and socio-cultural influences interact to affect behaviour (Cerulo and Cerulo, 2015). In the present study, we presume that cognitive styles and moral potency interact to affect self-employment intentions. The situated meta-cognitive model of entrepreneurial mind-set posits that what people know about entrepreneurial task or situation leads to formulation of a metacognitive strategy that will most likely lead to the desired outcome (Haynie et al., 2010; Haynie & Shepherd, 2009). Thus individuals who consider business behaviour to be morally challenging would intuitively shun self-employment opportunities. However, the model further postulates that the perception of the context and motivations can lead to adjustment in goals and plans to fit the reality, and to achieve the best outcomes (Haynie et al., 2010). Therefore, applied to job search, unemployed individuals who employ flexible cognitive approaches would still find self-employment an attractive employment alternative, even for those who generally think that certain aspects of business are morally challenging.

*H3a:* Moral potency is positively related to self-employment intentions.

*H3b:* The relationship of moral potency and self-employment intentions is moderated by cognitive style.

## METHODS

### Participants and Procedure

Participants involved unemployed youths from Uganda and Kenya. Participants were recruited from public forums including training workshops and youth associations. This resulted into responses from 171 Ugandan and 56 Kenyan unemployed youth; 50.7% females and 49.3% males. Participants were young persons aged 18 to 35 years (average age: 25.5, SD = .85). All participants had achieved a level of education that is necessary to obtain skilled employment; bachelors or higher degree (59.4%), diploma (12.3%), and certificate in vocational or technical skills (25.9%). Nearly half (49.3%) of the participants had prior experience in self-employment, either running their personal or working in family businesses.

### Measures

**Cognitive Styles:** The Cognitive Styles Index – CSI (Allinson and Hayes, 1996) was adopted. The CSI is a 38-item self-report inventory measured on a 3-point response scale (True, Uncertain, and False) that assesses an individual's position on the intuitive and analytic continuum. Sample item: to solve a problem, I have to study each part of it in detail. For the present study, the inventory had an acceptable reliability coefficient ( $\alpha = .64$ ). The CSI presents cognitive styles as a multi-categorical construct with five indicators: intuitive, quasi intuitive, adaptive, quasi analytic, and analytic styles. The scale is scored with a single total score for each participant (minimum = 0, maximum = 76). Accordingly, the score ranges for each style are; intuitive (0 – 28), quasi intuitive (29 – 38), adaptive (39 – 45), quasi analytic (46 – 52) and analytic (53 – 76) (Allinson and Hayes, 2012). In the present study, we operationalize cognitive styles with three indicators; intuitive (0 – 38), adaptive (39 – 45), and analytic (46 – 76).

**Culture:** The Personal Cultural Orientations (PCO) scale (Sharma, 2010) was used. The PCO is a 40-item instrument measured on a 7-point Likert scale (1 – strongly disagree to 7 – strongly agree); for example, I rely on myself most of the time, rarely on others. The scale operationalizes Hofstede's national cultural dimensions at the individual level in a structure of ten (10) Personal Cultural Orientations. These include independence, interdependence, power, social inequality, masculinity, gender equality, risk aversion, ambiguity intolerance, tradition, and prudence. Only independence and risk aversion orientations were measured in the present study (each with Cronbach  $\alpha = .74$ ).

**Moral potency:** was measured using the Moral Potency Questionnaire – MPQ (Hannah, Avolio, and May, 2011; Hannah and Avolio, 2010). The MPQ is a 12-item Likert scale measuring three moral capacities including moral ownership, moral efficacy and moral courage. Sample item: confront a leader if he/ she commits an unethical act (1 – strongly disagree, 5 – strongly agree). The questionnaire had a high reliability in the present study ( $\alpha = .86$ ).

**Self-employment intentions:** We adopted items from Liñán and Chen (2009) entrepreneurial intentions questionnaire. The items were rated on a 7-point Likert scale ranging from 1 (totally disagree) to 7 (totally agree). The instrument composed of six (6) items for example “I am ready to do anything to be self-employed” and “I have the firm intention to start my self-employment project someday.” This questionnaire showed high reliability in the present study ( $\alpha = .86$ ).

## RESULTS

Tables 1 and 2 present the descriptive statistics and correlations among the variables. In line with our expectations (*H1*), the ANOVA results show that unemployed youth with adaptive cognitive style ( $M = 6.27$ ,  $SD = .10$ ) have higher mean scores on self-employment intentions than those with intuitive ( $M = 4.82$ ,  $SD = .22$ ) and analytic ( $M = 5.85$ ,  $SD = .08$ ) styles. In general, the mean differences on self-employment intentions for different cognitive styles were significant ( $F = 26.88$ ,  $p < .001$ ). We further investigated the mean differences in other variables in the study, in relation to cognitive styles. Our results (Table 2) show non-significant mean differences in the cultural orientations (independence and risk aversion); but there are significant differences in moral potency ( $F = 16.96$ ,  $p < .001$ ). This is confirmed by correlation results showing a positive relationship between moral potency and self-employment intentions ( $r = .25$ ,  $p < .001$ ). Further analysis using linear regression (Appendix 1) also proved the positive impact of moral potency on self-employment intentions ( $B = .38$ ,  $p < .001$ ). Hence *H3a* is supported. Self-employment intention was marginally positively correlated to independence cultural orientation and negatively to risk aversion orientation. We confirmed these relationships with linear regression analysis (Appendix 1). Risk aversion was negatively and non-significantly associated with self-employment intentions ( $B = -.05$ ,  $p > .05$ ) while independence was positively but non-significantly associated to self-employment intentions ( $B = .06$ ,  $p > .05$ ). Thus *H2a* and *H2c* were not supported. Regarding the control variables, only sex ( $B = .33$ ,  $p < .05$ ; male = 0, female = 1) and previous business

related experience ( $B = .39, p < .05$ ; with experience = 01, no experience = 0) were significantly associated to self-employment intentions. This indicates that females had higher intentions for self-employment. In addition, business related experience increases intention to become self-employed.

*Insert tables 1 and 2 around here*

Conditional and unconditional effects of cognitive styles on self-employment intentions are presented in Tables 3 and 4. The effects are also visualized in Figures 1 – 3. We employed the PROCESS macro (Hayes, 2013) model 1 to test for moderation effects. Sample bootstrapping was set at 5,000 in line with Hayes' recommendation for bootstrapping to determine significance. In all moderation analyses, we controlled for the effects of country, age, sex, education level and prior business related experience. Similar to the procedure for analysing mediation with multi-categorical variables (Hayes and Preacher, 2014), supplementary documentation for PROCESS describes steps for analysing interaction effects with multi-categorical moderator. The indicators are dummy coded such that one indicator (with least code) is used as the reference against which the effects of the other indicators are compared. We coded cognitive styles as: adaptive = 0, intuitive = 1, and analytical = 2. Adaptive style was used as the reference indicator (thus the code 0) against which the effects of intuitive and analytic styles are compared. In the first model, independence orientation is the focal predictor; and cognitive styles the moderator.

Results of the moderation models in Table 3 support *H2b*, however *H2d* was not supported. In comparison to the reference cognitive style (adaptive), both intuitive style ( $B = -1.43, CI = -1.92$  to  $-.94$ ) and analytic style ( $B = -.31, CI = -.57$  to  $-.03$ ) had negative significant effects on self-employment intentions. Regarding the interaction effects of cognitive styles and independence orientation, our findings show positive but non-significant effects for intuitive style ( $B = .09, CI = -.25$  to  $.42$ ), and negative but non-significant effects for analytic styles ( $B = -.00, CI = -.33$  to  $.32$ ). The overall effects were also non-significant, with negligible change in intentions resulting from the interaction of cognitive styles and independence orientation. Probing of the moderation show the conditional effects were non-significant for all the three cognitive styles. The moderation plots in Fig. 1 show that the intent to become self-employed is high for unemployed individuals with an adaptive style; which intent is constant at all levels of independence orientation. Individuals with an intuitive

style reported relatively lower high self-employment intentions, however, the intentions increase with the level of independence orientation.

*Insert table 3 here*

*Insert figures 1 and 2 here*

When risk aversion is the focal variable, the conditional effects were significant with a significant increase in self-employment intentions due to the interaction ( $F = 26.98$ ,  $p < .001$ ,  $\Delta R^2 = .13$ ). The whole regression model ( $F = 14.98$ ,  $p < .001$ ,  $R^2 = .39$ ) was also significant. In relation to the reference style (adaptive), both intuitive style ( $B = -1.60$ ,  $CI = -1.98$  to  $-1.23$ ) and analytical style ( $B = -.31$ ,  $CI = -.56$  to  $-.06$ ) had significant negative effects on self-employment intentions. However, interaction with risk aversion only had significant effects for the intuitive style ( $B = -.86$ ,  $CI = -1.09$  to  $-.63$ ). We observe that the self-employment intention among people with adaptive style is high and increases gradually with levels of risk aversion, while intentions for analytic style group remain quite the same at different levels of risk aversion. On the contrary, intent for self-employment is very high for intuitive style group at lower levels of risk aversion, but extremely low at higher levels of risk aversion.

The study further aimed at establishing the impact of cognitive styles on the association between moral potency and self-employment intention. Interactions with intuitive style ( $B = .99$ ,  $CI = .46$  to  $1.51$ ) was significant, while interactions with analytic style ( $B = .17$ ,  $CI = -.43$  to  $.78$ ) was not significant. From the moderation plot (Fig. 3), we observe that for individuals with intuitive, the intent to become self-employed is higher at high levels of moral potency, but very low at low levels of moral potency. On the other hand, self-employment intentions are high at all levels of moral potency for individuals with analytic and adaptive styles. Although intentions increase gradually with high level of moral potency.

*Insert Table 4 here*

*Insert Figure 3 here*

## **DISCUSSION**

The aim of the present study was to investigate the impact of cognitive styles, cultural orientations and moral potency on self-employment intentions of unemployed youth.

Specifically, we posited that an adaptive cognitive style is more seminal than the intuitive and analytic styles in formation of intent to go into self-employment in the context of unemployment. The results show significant mean differences on self-employment intentions for different cognitive styles, confirming previous findings that cognitive styles have a role to play in formation of entrepreneurial intentions (Barbosa et al., 2007; Molaei et al., 2014). There is no general agreement about which cognitive style is particularly important for enhancing intentions. Whereas most of previous research suggest that intuitive style is more suited to the entrepreneurial role. Our findings are in line with those suggesting that combining both intuition and rationality, that is the adaptive style, is beneficial for the entrepreneur (Armstrong et al., 2012; Cools and Broeck, 2008; Ettl et al., 2014; Sommer, 2013). Adaptability of cognitive style is generally important for unemployed individuals in their efforts to obtain employment or re-employment. Some individuals have been employed before but lost their jobs. Some have a previous history of self-employment but failed in their endeavours. While others have never been in any form of employment because they have not been successful in their job searches. Given these circumstances, individuals may employ flexibility in their cognition; for example, using more rationality in discerning whether self-employment offers a viable and secure employment option; while on the other hand requiring some level of intuition to recognize business opportunities that offer an entry point into self-employment.

The results further show that other predictors of self-employment intentions in this study, particularly moral potency, also vary in relation to cognitive styles. Moral potency tends to be high for individuals using the analytic style, low for individuals using intuitive style, and moderate for individuals using adaptive style. This has implications for the level of moral challenge that individuals may perceive in given self-employment ideas or opportunities. In relation to risk aversion, individuals with analytic style had the highest mean score on risk aversion. The more individuals analyse situations, the more the likelihood of discovering challenges relating to entry ethical dilemmas of doing business. This may have a negative implication for self-employment intentions. On the contrary however, we find a positive correlation between moral potency and self-employment intentions. As expected self-employment intentions was positively related to independence orientation and negatively to risk aversion.

The moral challenges in entrepreneurship and the morally deficient behaviour of some businesspeople (Anderson and Smith, 2007; Brenkert, 2009) can discourage morally potent individuals from self-employment. On the other hand, adaptability of cognitive style facilitates a balanced evaluation of the moral challenges versus expected outcomes. The positive socio-economic benefits to self and community therefore become moral attractions to self-employment. Yet even when undesirable, self-employment is socially, economically, morally, and professionally a superior alternative than remaining unemployed. Moreover, the outcomes of self-employment such as earning income, creating jobs for others, and service provision may be evaluated as outweighing the ethical challenges the self-employed encounter in starting and running an enterprise.

One of the important contributions of this study relates to the conditional effects of cognitive styles on self-employment intentions; as moderated by personal cultural orientations of independence and risk aversion. The results support our proposition that unemployed individuals with an adaptive cognitive style have higher self-employment intentions. However, self-employment intentions for people with adaptive cognitive style did vary with level of independence orientation. This is contrary to our presumption that cognitive adaptability is useful when people have higher levels of autonomy. It also contradicts Vaghely and Julien's (2010) model of combined constructionist and cognitivist perspective, individuals with an adaptive cognitive style are able to combine their intuitive learning to recognize opportunities (Ahmad et al., 2014; Barbosa et al., 2007; Hmieleski and Corbett, 2006) with their analytical skills to explore the feasibility of self-employment, and explore alternative finance and alternatives to implement their ideas.

Our findings highlight the collectivistic (interdependence) nature of East African communities. The African "Ubuntu" psychology of development focuses on togetherness. This is expressed in the Ubuntu concept "ich bin, weil du bist" (Sahling, 2013); implying "I am, because you are". This explains why independence orientation or autonomy is loosely linked to self-employment intentions. In highly collectivistic East African cultures, careers are not always autonomously determined, rather the significant others play a major role. Regarding self-employment specifically, young people rely on their families and relatives for approval and support with start-up resources. This highlights the idea that collectivism facilitates implementation of innovations (Tung et al., 2007) through joint actions. Specifically, collectivism facilitates participation in business activities even among those that

do not own enterprises through discouraging competition (Dana, 1995). Although this negatively impacts on the number of start-ups, it provides an environment for success for those who start enterprises. Collective tendencies in the society also increase opportunities for creating social networks within the community, that enables pulling resources and competences to implement the innovative ideas of those with entrepreneurial minds, or as Mauroner (2017) refers to them as “the makers”. However, with rapid changes in societies and in economic forces, there are also changes occurring in the level to which individualism and collectivism are being applied to small businesses (Missens et al., 2010).

With regard to risk aversion, results indicate that the relationship between cognitive styles and self-employment intentions was stronger at moderate and high levels of risk aversion than at the lower level. In line with our postulation, self-employment intentions among unemployed individuals are high at all levels of risk aversion for individuals with an adaptive style; while intentions are high only at lower risk aversion levels for individuals with intuitive style. Although we investigate risk aversion as a personal cultural orientation, our findings complement previous research that has predominantly treated risk aversion in the framework of national cultures or as an entrepreneurial attitude (e.g. Barbosa et al., 2007; Costa and Mainardes, 2016; Dawson and Henley, 2015). However, the present study added the interactional effect of risk aversion and cognitive style. We observe that the interaction of intuitive style and high risk aversion significantly lowers entrepreneurial intentions. To the contrary, self-employment intentions tend to be high at all levels of risk aversion for unemployed people with adaptive and analytic styles. This finding may not be confined to the nature of the population or geographical area, given that (Barbosa et al., 2007) makes a similar observation from a similar study in a different population and different developmental context. The possible implication is that intuitive individuals quickly dismiss an opportunity, without give it much thought, when they realize that there are less likelihoods of success. in agreement with theoretical assumptions of adaptive cognition (Haynie et al., 2010; Haynie & Shepherd, 2009), individuals with adaptive style will not dismiss or exploit self-employment opportunities intuitively or with overly calculative risk analysis, but rather on a balanced view of the risk versus expected outcomes based on their knowledge of the opportunity, their abilities and the context.

Another major contribution of the present study relates to the impact of cognitive styles on the relationship between moral potency and self-employment intention. We

investigated moral potency as both a moderator and mediator. In support of our hypothesis, individuals with adaptive style have high self-employment intentions at all levels of moral potency. On the contrary, self-employment intentions are very high at higher levels of moral potency for individuals with an intuitive style. Similarly, intentions are relatively higher at higher levels than at low levels of moral potency for individuals with analytical style. Given that individuals with intuitive styles pay less attention to details (Allinson and Hayes, 1996) they are less likely to make a thorough analysis of the moral implications of a particular entrepreneurial idea. Thus an individual is most likely to abandon immediately an idea or opportunity when it is perceived to be associated with more ethical challenges. For individuals with adaptive style, particularly in the context of unemployment, they are likely to make a balanced evaluation of the moral challenges of self-employment opportunity versus expected outcomes as well as in relation to the challenges of remaining unemployed. For some individuals particularly with adaptive cognition, the moral challenges of self-employment are offset by the expected socio-economic outcomes. Overall, moral potency plays a big role in development of self-employment intentions among the unemployed. Self-employment intentions are more likely to be high when individuals think that they have the ability to behave ethically or overcome the ethical challenges related to the business idea or opportunity. The consideration that self-employment does not only offer employment, but also an opportunity to make contribution to society makes self-employment attractive (Dana, 1996) and morally superior to remaining unemployed.

### **Implications**

Our findings have implications for policy, specifically for governments of less developed economies and their development partners, in the process of increasing the number of young and unemployed people starting up self-employment projects. Through entrepreneurial education, entrepreneurial cognition can be developed. Sommer (2013), for example, highlights the need to emphasize the intuitive and analytic approaches in entrepreneurial education. To the contrary, we suggest that emphasis should be on empowering young people to be adaptive in their cognition. We particularly call on government interventions and trainers to incorporate entrepreneurial cognition skills and abilities in entrepreneurial training programs. Such abilities are helpful in effective evaluation of risk, ethical and other challenges that individuals associate with self-employment opportunities. We also recommend that there should be efforts to expose young persons to

self-employed role models or entrepreneurs with admirable moral character. Role models with positive character will not only attract more young persons to self-employment, but also model ethical behaviour among prospective entrepreneurs.

### **Limitations**

There are some limitations for this study that have to be considered. We have investigated self-employment intentions among unemployed youth, and how cognitive styles, personal cultural values and moral potency impact on the intentions. However, we did not explore whether the fact that one is unemployed contributes to their intent to go into self-employment. We only consider unemployment as a context. Whereas some studies demonstrate the link between unemployment and intentions to become self-employed (e.g. Abada et al., 2014; Oh, 2008; Saridakis et al., 2014), other researchers downplay this relationship (see: Patel and Thatcher, 2014). This association, therefore, is an area that requires more research attention. The second limitation is that whereas we collect data from two different countries, we did not analyse for the differences among these countries given that we primarily focus on personal cultural orientation rather than national culture. A cross-cultural research to examine the variability of the effects among different developing countries can provide further insights. Moreover, a comparison with a similar population in more developed countries would provide better cross cultural and economic perspectives.

### **Conclusion**

At the time when economies are still recovering from the economic depression, and unemployment reaching unprecedented rates, self-employment has an enormous role to play. The role of self-employment on increasing entrepreneurial initiatives, which in turn impact on economic development and job creation (e.g. Anyanwu, 2014; Fritsch and Wyrwich, 2014; Shane and Venkataraman, 2000; Williams et al., 2013) cannot be underestimated. Consequently, many governments and development actors are increasingly emphasizing self-employment as an important career alternative; and as a possible means of driving economies forward. There is therefore an opportunity to interest many young people to join the ever growing movement of the self-employed. Entrepreneurship is also a sustainable ways of overcoming economic vulnerabilities, and empowering individuals and communities to be self-sustaining (Khan, 2014). This is particularly more important for the unemployed youth, who are at a critical stage of their career development. Given the importance of self-employment to the labour market and economy, enormous research has been conducted on self-employment or entrepreneurial intentions. However, very few studies have investigated

the impact of cognitive styles in the intentions models, while the role of morality is rather ignored. Moreover, there is very limited research on entrepreneurial intentions in the context of less developed countries.

This paper contributes to the entrepreneurial intentions literature in studying a rather neglected yet vulnerable population of unemployed youth in less developed economies. Our findings have demonstrated two issues. First, at least among the unemployed and in support of the theoretical basis of adaptive cognition, an adaptive cognitive style is related to higher intent to become self-employed. Second, cognitive styles moderate the relationships between personal orientation towards risk aversion as well as moral potency and self-employment intentions. Moreover, for individuals that have high orientation towards risk aversion, an adaptive cognitive style still enhances self-employment intentions. The role of cognitive styles in entrepreneurial tasks or motivations such as opportunity recognition, decision making, innovations, efficacy and attitudes is already highlighted in extant literature (e.g. Barbosa et al., 2007; Baron, 2004; Urban, 2012). With regards to intentions however, our findings highlight the relevance adaptive cognition to entrepreneurial intentions and extends the few studies that have argued for an adaptive style in entrepreneurial education (e.g. Ettl et al., 2014; Sommer, 2013).

Moreover, we introduce a moral potency concept (or moral intelligence, as referred to in some literature) to the study of intentions. By doing so, our study further extends the literature and theoretical models on factors that underpin development of entrepreneurial intentions and behaviour (e.g. Baron, 1998; Krueger, Reilly, & Carsrud, 2000; Schlaegel, He, & Engle, 2013; Schlaegel & Koenig, 2014). The moral potency concept for example extends the normative factors that motivate entrepreneurial intentions and behaviour. Similarly, Rauch et al. (2013) advocated for studying culture as a moderator in entrepreneurship research. Our study is one of such efforts heeding to this call, and have successfully proven that measuring personal cultural orientation, as opposed to the popular national level measures, is also important to understanding entrepreneurial or self-employment intentions; as well as relations of cultural variables to other personal level variables in development of intentions.

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**Table 1.** Descriptive statistics and correlations between variables

Variables	M	SD	$\alpha$	1	2	3	4
1. Cognitive styles	2.03	1.52	.64	-			
2. Independence	5.62	1.23	.74		-		
3. Risk aversion	3.92	1.55	.74		.00	-	
4. Moral potency	3.63	.73	.86		.07	-.03	-
5. Self-employment intentions	5.85	1.11	.86		.04	-.13	.25***

\*\*\*. Correlation is significant at the 0.001 level (2-tailed).

**Table 2.** Cognitive styles and mean differences in other variables

Outcome	Means ( <i>SE</i> )			<i>F</i>	<i>P</i>
	Intuitive	Adaptive	Analytic		
Self-employment intentions	4.82 (.22)	6.27 (.10)	5.85 (.08)	26.88	.000
Independence	5.32 (.27)	5.60 (.14)	5.74 (.10)	1.68	.188
Risk aversion	3.74 (.21)	3.79 (.22)	4.05 (.14)	.85	.431
Moral potency	3.11 (.13)	3.55 (.09)	3.84 (.06)	16.96	.000

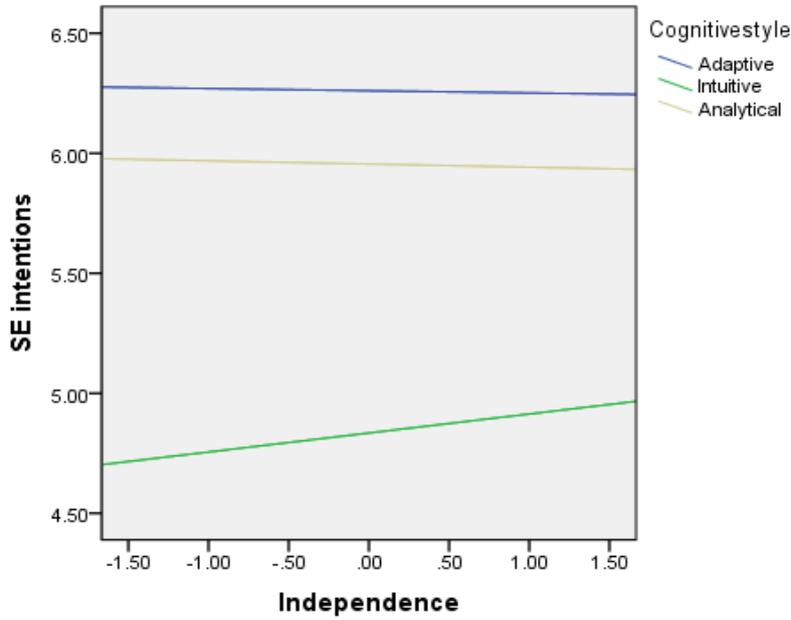
**Table 3.** Interaction effects of cultural orientations and cognitive styles on self-employment intention

Predictors	B	SE	LLCI	ULCI
<b>Independence Cultural Orientation</b>				
Country	-.06	.16	-.37	.25
Age	-.00	.09	-.18	.18
Sex	.34	.15	.06	.63
Education level	-.05	.07	-.18	.08
Previous experience	.40	.14	.12	.67
Independence	-.01	.11	-.23	.21
Intuitive style	-1.42	.25	-1.92	-.94
Analytic style	-.31	.14	-.57	-.04
Independence X intuitive	.09	.17	-.25	.42
Independence X analytic	-.00	.16	-.33	.32
Model summary	$F(10, 206) = 5.13, p = .000, R^2 = .25$			
R <sup>2</sup> increase due to interaction	$F(2, 206) = .16, p = .849, \Delta R^2 = .002$			
<i>Conditional effect of independence orientation in groups defined by cognitive style</i>				
Adaptive	-.01	.11	-.23	.21
Intuitive	.08	.13	-.17	.33
Analytical	-.01	.14	-.28	.25
<b>Risk Aversion Cultural Orientation</b>				
Country	-.09	.14	-.36	.19
Age	-.02	.08	-.17	.14
Sex	.13	.13	-.13	.39
Education level	.03	.05	-.07	.14
Previous experience	.21	.13	-.04	.46
Risk aversion	.06	.04	-.03	.14
Intuitive style	-1.60	.19	-1.98	-1.23
Analytic style	-.31	.13	-.56	-.06
Risk aversion X intuitive	-.86	.12	-1.09	-.63
Risk aversion X analytic	-.06	.07	-.19	.07
Model summary	$F(10, 206) = 14.98, p = .000, R^2 = .39$			
R <sup>2</sup> increase due to interaction	$F(2, 206) = 26.98, p = .000, \Delta R^2 = .13$			
<i>Conditional effects of risk aversion in groups defined by cognitive styles</i>				
Adaptive	.06	.04	-.03	.14
Intuitive	-.81	.11	-1.02	-.59
Analytical	-.01	.06	-.11	.10

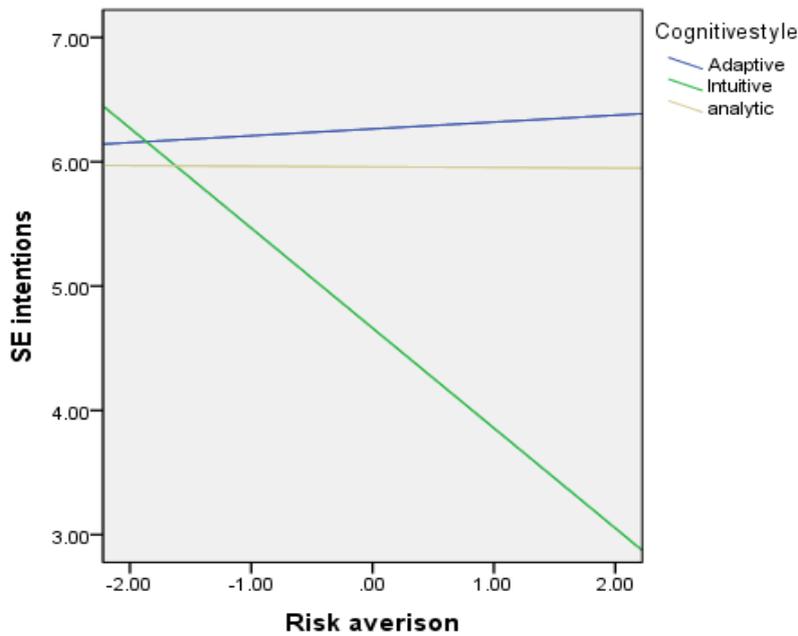
**Table 4.** Interaction effects of moral potency and cognitive styles on self-employment intentions

Predictors	B	SE	LLCI	ULCI
Country	-.05	.15	-.36	.25
Age	.07	.09	-.10	.24
Sex	.24	.15	-.04	.52
Education level	-.07	.07	-.20	.07
Previous experience	.35	.13	.10	.61
Moral potency	-.03	.17	-.38	.31
Intuitive style	-.96	.26	-1.48	-.45
Analytic style	-.31	.15	-.60	.02
Intuitive X moral potency	.99	.27	.47	1.51
Analytic X moral potency	.17	.31	-.43	.78
Model summary	$F(10, 206) = 19.19, p = .000, R^2 = .33$			
R <sup>2</sup> increase due to interaction	$F(2, 206) = 7.54, p = .001, \Delta R^2 = .05$			
<i>Test of equality of conditional means at different levels of the moderator</i>				
Adaptive	-.03	.17	-.38	.31
Intuitive	.96	.18	.60	1.31
Analytical	.14	.23	-.32	.60

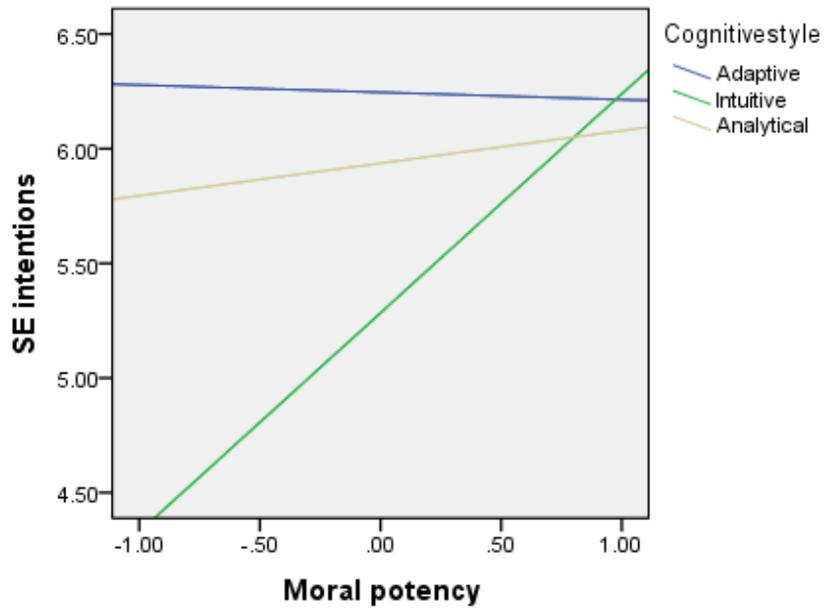
**Figures**



**Figure 1.** Interaction effects of cognitive styles and independence cultural orientation on self-employment (SE) intentions



**Figure 2.** Interaction effects of cognitive styles and risk aversion cultural orientation on self-employment (SE) intentions



**Figure 3.** Interaction effects of cognitive styles and moral potency on self-employment (SE) intentions

## Appendix 1: Predictors of self-employment intentions

Predictor	B	SE
Constant	4.53***	.75
Country	-.11	.18
Age	-.09	.09
Sex	.37*	.15
Education level	-.07	.08
Previous experience	.39*	.15
Cognitive styles	-.18	.09
Independence	.05	.06
Risk aversion	-.05	.05
Moral potency	.43***	.09
<i>Model summary</i>	$F(9, 207) = 4.16^{***}, R^2 = .15$	

\*\*\* p < .001, \* p < .05

**Manuscript #4**

**Interactive Effect of Control and Normative Beliefs on Entrepreneurial Attitudes and Self-employment Intentions: The Role of Internal Locus of Control and Individualism**

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### **Abstract**

Applying Ajzen's planned behavior theory, we study the impact of control beliefs (reflected by internal locus of control) and normative beliefs (investigated via individualistic cultural orientation) on entrepreneurial attitudes and self-employment intentions of final year university students. We particularly explore the interactive effect of internal locus of control and culture when explaining entrepreneurial attitudes, which consequently shapes self-employment intentions. The data were collected at a German university and three universities in East Africa. We received 590 complete responses. We used PROCESS Macro to test our model and hypotheses. Our findings show that both internal locus of control and culture predict entrepreneurial attitudes and self-employment intention. The effects of internal locus of control are mediated by entrepreneurial attitudes. Moreover, the indirect effect is further conditioned by culture. Theoretical and practical implications of these findings are discussed.

*Key words:* Culture, entrepreneurial attitudes; individualism; intentions; self-employment; theory of planned behavior

## Introduction

What should I do after graduating from my university? How and where to get a meaningful job? How do I further my career progression? How to successfully negotiate one's entry into the labor market? Young people ahead of graduation face exactly these questions. What about starting a business of one's own? Self-employment or precisely job creation for one's self is increasingly a common agenda in development and career discourses. The unavailability of jobs is a huge concern for both nations and individuals, particularly the unemployed, those in insecure jobs and the students at the completion phase of their studies.

The inevitability of the unemployment challenges in the years following financial or economic crises (Reinhart & Rogoff, 2009) necessitates consideration of self-employment not only as means to creating jobs, but also boosting economic development. Extant literature shows that entrepreneurship (one form of self-employment) is a basis for economic resilience, growth and development (Fritsch & Wyrwich, 2014; Ireland & Webb, 2007; Skriabikova, Dohmen, & Kriechel, 2014; Valliere & Peterson, 2009; Williams, Vorley, & Ketikidis, 2013). It has also been observed that entry into self-employment tends to increase in the face of changing dynamics in the labor situations such as limited opportunities for salaried positions (Falter, 2005; Rissman, 2003). Graduating with a degree or a diploma is no guarantee for a successful job search. Self-employment thus becomes a more viable solution, for it is a process through which entrepreneurial ideas are promoted and implemented thus increasing employment opportunities (Fritsch & Wyrwich, 2014; Wolff & Nivorozhkin, 2012). Therefore, self-employment has the potential for being the foundation of tackling the exacerbated unemployment rates, and enhancing economic progression.

Although self-employment has been observed to increase in periods following economic or unemployment crises, it would be misleading to assume that self-employment is completely a reactive response to some sort of challenge. Some individuals choose self-employment as a proactive career decision (Walker & Webster, 2007). In this direction, some studies reveal that unemployment actually has a minor effect on entry into self-employment (Patel & Thatcher, 2014). On the contrary, entry into self-employment can also be influenced by rather positive circumstances and attractions such as entrepreneurial culture and expected outcomes (Abada, Canada, & Lu, 2014; Goetz & Rupasingha, 2013; Wang, Prieto, Hinrichs, & Aguirre Milling, 2012). Most recent research confirms this, showing that despite the economic conditions,

personal characteristics remain the most essential predictors of entrepreneurial activity engagement (Santos, Caetano, Spagnoli, Costa, & Neumeier, 2017). Understanding behavioral motivations is not only important for theorizing but also individuals need to understand why they make certain choices (Krueger, Reilly, & Carsrud, 2000; Krueger, 2009) relating to their careers.

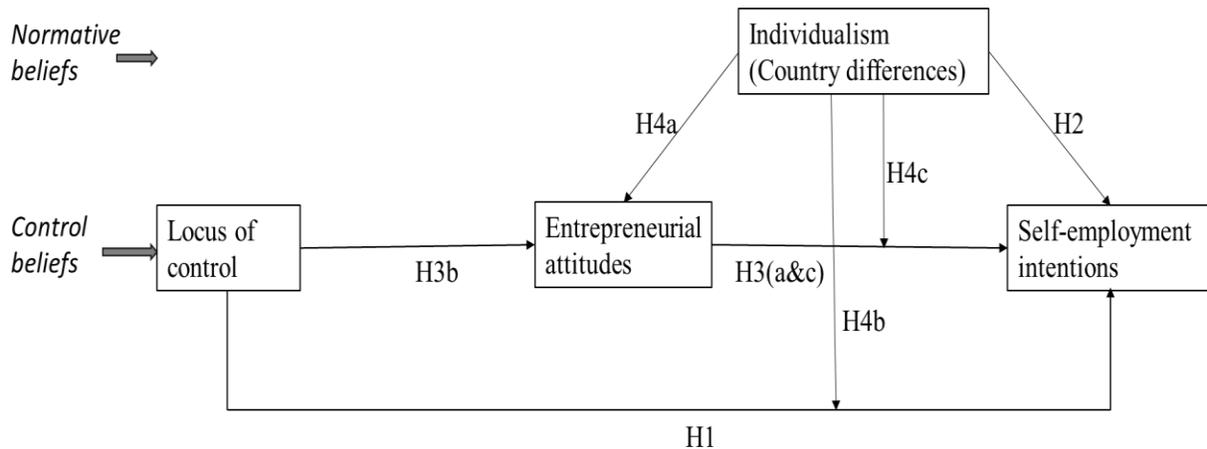
To explain what motivates people into entrepreneurial activities, several frameworks have been developed. However, the Theory of Planned Behavior (Ajzen, 1985, 1991) is by far the most applied cognitive model to explaining entrepreneurial intentions. The theory posits that behavior is largely determined by intention. Moreover, intention, which is the readiness to engage in the specific behavior, is a consequence of attitudes towards the behavior, subjective norm and perceived behavioral control (Ajzen, 1991). Ajzen's model largely suggests that these components combine to influence intentions and consequently behavior. In the present study, we propose that self-employment intentions are formed through both mediated and moderated processes between attitudes, subjective norm and perceived behavioral control. We operationalize control beliefs by internality of locus of control. We also conceptualize normative beliefs by cultural orientation towards individualism, which has been posited to be a major characteristic of entrepreneurial cultures (Contiua, Gaborb, & Stefanescuc, 2012; Dana, 1995; Lee & Peterson, 2000; Mueller & Thomas, 2001). Individualism is particularly a measure of cohesiveness or looseness of interpersonal relations among members of a given society (Hofstede, Hofstede, & Minkov, 2010; Minkov & Hofstede, 2011).

Based on the (Ajzen, 1991) model for predicting behaviors, we argue that there are interactions between the elements of the model in leading to behavioral intentions. We particularly investigate (1) the impact of internal locus of control on self-employment intentions; (2) the mediating effect of entrepreneurial attitudes on the relationship between internal locus of control and self-employment intention; (3) the moderating effect of normative beliefs on the mediation effects stated (2) above. Moreover, when operationalizing normative beliefs in terms of culture, particularly focusing on individualism dimension of Hofstede (1984) taxonomy of national culture. This is based on Hofstede's assumption of national culture, that a country also has a set of defined normative standards that generally apply to at least most of its citizens; hence, we measure the impact of subjective norm at the country level.

### **Theoretical Framework and Hypotheses Development**

Self-employment entry, in an entrepreneurial sense, is a planned process (Krueger, Reilly, Carsrud, et al., 2000) therefore intentional. This implies that individuals cautiously think about becoming self-employed or starting businesses of their own before taking practical steps towards actual entry (Krueger, 2003). Intentionality of behavior can be well understood from the Ajzen (1985, 1991) theory of planned behavior. This perspective attributes behavioral intentions to attitudes, subjective norm and perceived behavior control (Ajzen, 1991; Greaves, Zibarras, & Stride, 2013; Obschonka, Silbereisen, & Schmitt-Rodermund, 2010; Tkachev & Kolvereid, 1999). Yet intentions strongly predict behavior (Kautonen, van Gelderen, & Tornikoski, 2013; Krueger, Reilly, & Carsrud, 2000).

The fundamental idea is that intentions, antecedent on attitudes, are best predictor of actual behavior (Ajzen, 1991; Krueger & Carsrud, 1993). From this viewpoint, individuals with positive attitudes towards a behavior tend to have higher intentions and more likely to engage in the behavior. Indeed, Kautonen, van Gelderen, & Fink, (2015) and Krueger et al. (2000) showed that much of entrepreneurial behavior is intentionally planned. The theory has been supported by a number of empirical findings. In both Kautonen et al. (2015, 2013) studies, the three factors emphasized by the theory were significant predictors of entrepreneurial intentions; while entrepreneurial alertness and importance attached to financial security were essential for entrepreneurial intentions in Gelderen et al. (2008) study of perceived behavior control aspects. Empirical research supporting this perspective shows that entrepreneurial intentions and behavior are influenced by personal and situational factors via attitudes (Basu & Virick, 2008; Krueger, et al., 2000; Pfeifer, Šarlija, & Zekić Sušac, 2016) and behavioral motivation (Krueger et al., 2000). We particularly investigate the interactions between the elements of the planned behavior model in influencing entrepreneurial attitudes and intentions. We posit that control and normative beliefs interact to influence entrepreneurial attitudes, through which they indirectly impact on self-employment intentions. We further assume that there are likely to be variations in intention levels between countries resulting from differences in national cultures (particularly individualism dimension), which further demonstrates the role of normative beliefs.



**Figure 1.** Conceptual model and hypotheses

The aspect of behavior control refers to the individual’s perceived competence or efficacy to engage in the behavior as well as to have control over the behavior (Krueger & Carsrud, 1993). Self-employment or entrepreneurship, involves high levels of risk, which affects intentions and decision making (e.g. Caliendo et al., 2010; Hu, 2014; Nabi and Liñán, 2013; Orobia et al., 2011). Hence perceived controllability is important to formation of entrepreneurial intentions. We operationalize control beliefs with internalization of locus of control, a construct that has for long been linked to entrepreneurial behavior (e.g. Ahmed, 1985; Diaz, 2003; Kaufmann and Welsh, 1995). Internal locus of control measures the belief that oneself, rather than chance or situation, has control over what happens. The perceived belief that one can control what happens to the venture or cope with the competitive and risky nature of business is essential for developing a positive entrepreneurial attitude and consequently formation of self-employment intention.

The component of subjective norms in the planned behavior model denotes social normative beliefs relating to the behavior, specifically whether significant others support or do not support the behavior (Krueger & Carsrud, 1993). From this analogy, the subjective norm aspect is closely linked to cultural orientations, specifically the individualism dimension, which relates to the looseness or cohesiveness of interpersonal relations (Hofstede, 1994; Hofstede, Hofstede, & Minkov, 1991; Minkov & Hofstede, 2011). This dimension reflects the extent to which individuals tend to be independent (Sharma, 2010). The ability to decide and act

autonomously is important in entrepreneurial situations. We posit that a high level of locus of control and high entrepreneurial attitudes more strongly enhance self-intention of students in a highly individualistic culture than in a society that is low on individualism.

### **Internal Locus of Control and Entrepreneurial Intentions**

The construct of locus of control was first conceived by Rotter (1954, 1966) and defined as an individuals' belief in the ability to control events that affect them; or the internality and externality tendencies in attributing causes of reinforcement (Kormanik & Rocco, 2009). Thus locus of control plays a role in perception of control (Roddenberry & Renk, 2010) based on the beliefs about the relationship between behavior and outcomes. Individuals are considered to have internal locus of control when they attribute events to their own actions or competences. On the other hand, externality of locus of control implies attributing behavior to chance or powerful others (Levenson, 1973; Roddenberry & Renk, 2010).

Behavioral control is an important component in the planned behavior theory, particularly in relation to the impact of factors that are indigenous to a given behavior in particular situation. Perceived control over such factors is associated to behavioral intentions, in a manner that high levels of perceived control increases behavioral intention, thus indirectly impacting on actual behavior (Ajzen, 2002). In the theory of planned behavior, control perceptions regard the degree to which an individual believes that he or she has the ability and resources to perform a given behavior (Ajzen, 2002). Both internal and external perceptions of control have implications for engaging or avoiding a given behavior (Ajzen, 2002), thus distinction between internal and external causes maybe important (Ajzen, 2002; Ajzen, 1985) for they may reflect the perceived ability or inability to have control over a behavior. However, Ajzen (2002) observes that this is a misperception because difficulty or easiness of performing a behavior may be linked to both forms of locus of control. Hence, Ajzen proposes a unitary measure of controllability. However, based on previous studies highlighting the role of internalized locus of control to entrepreneurial outcomes (e.g. Diaz, 2003; Hansemark, 2003; Khan and Ahmed, 2011), we specifically focus on the internal aspect. Therefore, we use internal locus of control as a factor in controllability, and not as a full measure of perceived control.

Locus of control is an essential personality concept in business related situations. Hansemark (2003) longitudinal study revealed that it is a valid predictor of business startups.

Recent empirical evidence suggests locus of control plays an influential role in deciding to enter and exit self-employment (Caliendo, Fossen, & Kritikos, 2014). However, there may be variations in its impact on intentions in different populations. Internal locus of control tends to lower self-employment preferences for women (Verheul, Thurik, Grilo, & Van der Zwan, 2012). Nonetheless, research on the characteristics of entrepreneurs has revealed that the locus of control of entrepreneurs and the self-employed is predominantly internal (Verheul et al., 2012). In line with the assumptions of the theory of planned behavior, empirical evidence suggests that locus of control affects readiness for self-employment via attitudes (Lüthje & Franke, 2003).

We argue that internalized locus of control enables the individual to draw upon his or her positive attributes which enhance the perceived ability to undertake an entrepreneurial task, and enhance optimism for positive outcome (Baluku, Kikooma, & Kibanja, 2016). A key aspect of perceived behavioral control in the theory of planned behavior is self-efficacy (Ajzen, 2002), which also represents individual's appraisal of his or her competence to engage in and control over a behavior (Roddenberry & Renk, 2010). Internalized locus of control implies that an individual considers him- or herself not only being responsible for the action and its outcomes, but also recognition of the personal ability to engage in the behavior. The ability to recognize that one has the capability to achieve the desired goals from a self-employment venture as well as perception of the ability to overcome personal and situational impediments in the process of pursuing the desired goal is likely to boost self-employment intention. We therefore hypothesize:

**Hypothesis 1:** Internal locus of control is positively associated with self-employment intentions

### **Individualism and Entrepreneurship Intentions**

The individualism dimension of Hofstede's model for national cultures refers to the looseness or cohesiveness of interpersonal relations in a society (Hofstede, 1994; Hofstede et al., 1991; Hofstede, 1984; Minkov & Hofstede, 2011). It symbolizes the need for freedom or independence than interdependence among members (Dalby, Lueg, Nielsen, Pedersen, & Tomoni, 2014). Research based on Hofstede's model of national culture has demonstrated the relevance of culture in entrepreneurship at different stages; implying that a given culture may be conducive or unfavorable for self-employment (e.g. Hayton & Cacciotti, 2013; Krueger, Liñán, & Nabi, 2013; Li & Zahra, 2012; Mueller & Thomas, 2001; Sabah, Carsrud, & Kocak, 2014; Stuetzer et al., 2016; Zhao, Li, & Rauch, 2012).

In a broad sense, culture focuses on how societies respond to basic social issues (Minkov & Hofstede, 2011), hence in line with the description of normative beliefs (or subjective norm) in the theory of planned behavior. Cultural dimensions provide an understanding of why individuals in a given society behave or respond to stimuli in specific patterns, including business situations. Research has already shown that the extent and manner in which cultural values and norms are applied in business situations varies among societies (Frederking, 2004). Overall however, culture does impact on entrepreneurial motivations and behavior. This includes the perception of opportunities, barriers, support mechanisms, and personal abilities to engage in entrepreneurial activities (Autio, Pathak, & Wennberg, 2013; Migliore, 2011; Shinnar, Giacomini, & Janssen, 2012; Wennberg, Pathak, & Autio, 2013); development and usage of cultural and social capital (Chand & Ghorbani, 2011; Jayawarna, Jones, & Macpherson, 2014); and generally the choice of entrepreneurship as a career (Freitag & Thurik, 2010). The individual's dominant cultural orientation therefore can influence the extent to which the person exhibits pro-entrepreneurship attitudes and behaviors (Davidsson, 1995; Huggins & Thompson, 2014; Tlaiss, 2014). Past studies show that cultural orientations influence entrepreneurial competences such as risk attitude, need for achievement, self-efficacy and innovativeness (Krueger et al., 2013; Mueller & Thomas, 2001; Wennberg et al., 2013) which are associated to entrepreneurial intentions, entry and outcomes.

Consistent with the above, Mueller and Thomas (2001) claim that some cultures are more conducive for entrepreneurship than others. More relevant to the present study, entrepreneurship tends to thrive in cultures that are individualistic (Lee and Peterson, 2000; Mueller and Thomas, 2001; Tlaiss, 2014). On the other hand, entrepreneurship has been found to be negatively related to high collectivism (Eroglu & Piçak, 2011). At the individual level, empirical evidence suggests that individualistic orientation affects entrepreneurship behavior via its effect on individuals' level of innovativeness, autonomy, and risk-taking (Kreiser, Marino, Dickson, & Weaver, 2010; Lee & Peterson, 2000; Mueller & Thomas, 2001; Omerzel & Omerzel, 2016). Individualism is further associated with individuals' ability and willingness to undertake a business venture (Mitchell, Smith, & Seawright, 2000).

Therefore, it seems that the individualistic tendency is interweaved with the competency and willingness to engage in entrepreneurial activities. The expression of an entrepreneur as an individual champion who maneuvers through a string of obstacles to establish a business reflect

the values of individualism (Zeffane, 2014). In relation to these strengths, entrepreneurial activity has been found to be stimulated by individualistic values such as self-direction, achievement motivation, and pleasure seeking (Liñán, Moriano, & Jaén, 2016; Wdowiak, Schwarz, Breitenecker, & Wright, 2012). These are important for individuals to recognize and exploit opportunities, accept the risk and responsibility that are associated with business (Zeffane, 2014), which may not only relate to intention but also ability to persist and succeed in self-employment.

An important outcome that people seek in the work place is autonomy of decision making and action. Empirical evidence suggests that this need is more satisfied in self-employment than in salaried-employment. Thus this could be related to self-motivation for self-employment (see: Deci et al., 2001) in societies with individualistic values. Moreover, individuals with a high need for freedom are more likely to prefer workplaces that offer them high levels of autonomy. Therefore, even when self-employment is perceived as involving risks or challenging, individualistic values are likely to lead individuals to self-employment opportunities (Benz & Frey, 2008; Binder & Coad, 2013; Croson & Minniti, 2012). Therefore entrepreneurship intentions are expected to be higher in societies emphasizing individualistic values (F Liñán et al., 2016). Overall, independence as a cultural dimension predisposes individuals to values and attitudes that are relevant for entrepreneurship, consequently offers an environment that may pull individuals to self-employment. In the present study, we compare two countries; Germany which has a high score and East Africa (Kenya and Uganda) which has a low score on individualism (Hofstede et al., 2010). We therefore hypothesize that:

**Hypothesis 2:** Country is associated with self-employment intention, such that intentions are higher in a country with higher rating on individualism.

### **Entrepreneurial Attitudes and Intentions**

There is a huge amount of empirical evidence proving that attitudes influence career choices and behaviors. The championing work of Robinson, Stimpson, Huefner, & Hunt (1991) stimulated applications of the concept in neuro-entrepreneurship research. Majority of the studies have demonstrated that attitudes are relevant in understanding choice of entrepreneurship as a career (Callanan & Zimmerman, 2016; Lars Kolvereid, 1996). In this direction, studies mostly

grounded on planned behavior theory have demonstrated that attitudes impact on entrepreneurial interests and behaviors (e.g. Douglas & Fitzsimmons, 2013; Dreisler, Blenker, & Nielsen, 2003; Fayolle & Gailly, 2015; Fitzsimmons & Douglas, 2005, 2011; Harris, Gibson, Iii, Wang, & Orazov, 2011; Kibler, 2013; Rauch & Hulsink, 2015). Consequently, intentions to enter self-employment could result from positive entrepreneurial attitudes (Douglas & Shepherd, 2002; Harris & Gibson, 2008).

Moreover, an individual's utility evaluation, which determines interest or disinterest, is related to attitudes towards different aspects of entrepreneurship. In (Jones et al., 2011) study, entrepreneurial attitudes increased interest in the opportunity of the future or immediate entrepreneurial career. However, attitudes are not constant, they tend to vary with time and circumstances (Gibson, Walker, & Harris, 2010). Entrepreneurial attitudes specifically vary among regions, gender and cultures depending on social and economic systems; as well as experience and or training in business (Harris & Gibson, 2008; Henderson & Robertson, 2000; Loveridge, Miller, Komarek, & Satimanon, 2012).

Past research on entrepreneurial attitudes have tended to study attitudes as a general construct. However, another cluster of research has focused on specific attitudes including attitudes towards risk, autonomy, work effort, change, money, competition, and attitudes towards entry requirements (Douglas & Shepherd, 2002; McNally, Martin, Honig, Bergmann, & Piperopoulos, 2016; Valtonen, 2007). In the present study, we focus on the general attitude towards entrepreneurship. Much of the literature nonetheless, highlights the role risk and autonomy in describing liking of or dislike for entrepreneurship. The general finding that has been replicated in numerous studies is that intentions or actual entry in self-employment or entrepreneurship is associated with higher risk attitudes (Brachert, Hyll, & Titze, 2014; Brown, Dietrich, Ortiz-Nuñez, & Taylor, 2011; Douglas & Shepherd, 2002; Gupta & York, 2008; Hu, 2014; Schwarz, Wdowiak, Almer-Jarz, & Breitenecker, 2009; Skriabikova et al., 2014). This is because individuals with lower levels of risk attitudes tend to prefer the stability of income (Di Mauro & Musumeci, 2011) in salaried employment, yet income in self-employment is highly variable. Risk attitudes also have an effect on the entrepreneurial role an individual adopts, for instance, low risk persons are likely to become necessity rather than opportunity or innovation driven entrepreneurs (Block, Sandner, & Spiegel, 2015).

There is an increasing focus on studying autonomy attitude as a motivator of entry into self-employment. The increase in importance of work autonomy in career decisions is facilitated by changing social trends that emphasize self-reliance (Van Gelderen, 2010) and changing family roles that require work-family balance. Independence is one of the factors that individuals consider when calculating the expected utility of self-employment (Croson & Minniti, 2012; Douglas & Shepherd, 2002). Van Gelderen & Jansen (2006) observed variations in work autonomy needs among the self-employed. Some individuals have a preference for self-employment because they do not want to work for other people or want to be responsible or undertake work that is in line with one's values and beliefs, while others simply want to take independent decisions in work methods and time. Based on these reasons of autonomy, self-employed individuals have been found to have higher job satisfaction than individuals in salaried employment (Lange, 2012). Congruent to the planned behavior theory, goals such as search for autonomy, and positive attitudes towards other aspects of entrepreneurship such as risk increase the liking and intention for self-employment. We hypothesize that:

**Hypothesis 3a:** Entrepreneurial attitudes are positively associated with intentions for self-employment.

In the model of indigenous entrepreneurial attitude, Lindsay (2005) proposes that personal and contextual variables impact on entrepreneurial attitudes which further facilitates entrepreneurial behavior. In essence, the model suggests that entrepreneurial attitudes mediate the effects of factors such as personality and culture on entrepreneurial behavior. This is congruent to Ajzen (1991) model of planned behavior proposition that attitudes are impacted on by the beliefs, and in turn has the highest impact on behavioral intention. We therefore expect entrepreneurial attitudes to mediate the relationship between internal locus of control and self-employment intentions. This expectation is in line with previous studies on entrepreneurial intentions (Byabashaija and Katono, 2011; Lüthje and Franke, 2003; Tsai et al., 2016; Zampetakis et al., 2009) which highlight the mediational role of attitudes in the relationship between personal factors and intentions. We therefore hypothesize that:

**Hypothesis 3b:** Internal locus of control is positively associated with entrepreneurial attitudes

**Hypothesis 3c:** Entrepreneurial attitudes mediates the effect of internal locus of control on self-employment intentions.

In this study, we propose that control beliefs (internal locus of control) is associated to entrepreneurial attitudes and consequently related to self-employment intentions. We have already noted in previous sections that attitudes towards entrepreneurship differ across situations and are affected by culture. This suggests group or cross-cultural differences in entrepreneurial attitudes and intentions (García-Rodríguez, Gil-Soto, & Ruiz-Rosa, 2015; GH Hofstede & Hofstede, 2001; F. J. Santos, Roomi, & Liñán, 2016; Valtonen, 2007). There are differences among cultures regarding perceptions of business and business related behaviors such as autonomy. For instance, Valtonen (2007) in the assessment of culture contributions to entrepreneurial attitudes observes that unlike the Finnish, Americans entrepreneurs emphasize free market system, competition, and risk-taking. This confirms the assumption that the effect of attitudes on intentions to start business is moderated by beliefs (Phan, Wong, & Wang, 2002). In this regard, we argue that culture (individualism) interacts with individual's control beliefs and attitudes to influence intention for self-employment. Moreover, such differences may also arise out of other contextual factors such as level of development, or labor market dynamics existent in a given country (such as unemployment rates). This is in line with previous research and argumentations about how culture differentially impacts on intentions. Liñán & Chen (2009), for example, posit that national cultures can promote entrepreneurship through its influence on social and economic institutions; whereas in the context of unfavorable cultures, self-employment entry is motivated by need for self-fulfillment. We therefore also posit a moderated mediation model, whereby the indirect effects of internal locus of control on self-employment intentions via entrepreneurial intentions vary among countries (that is, moderated by culture). We hypothesize that:

**Hypothesis 4a:** Individualism is associated with entrepreneurial attitudes such that attitudes are higher in a country with higher ratings on individualism.

**Hypothesis 4b:** Individualism moderates the relationship between internal locus of control and entrepreneurial attitudes, such that intentions vary among countries.

**Hypothesis 4c:** The mediation effect of entrepreneurial attitudes on the relationship between internal locus of control and self-employment intention is conditioned by individualism, such that it varies among countries.

## Methods

## Participants and Procedure

The study involved final-year undergraduate students in Germany and two countries in the East African Community (Kenya and Uganda). Overall, 590 students aged 18 to 30 years ( $M = 23.61$ ;  $SD = .60$ ) participated in the study. For German sample, students at Philipps University Marburg were invited to participate via an online survey; leading to 286 valid responses (male = 164, female = 118). For the East African sample, students at Makerere University (Uganda) and Kisii and Maseno Universities (Kenya) were invited to fill in survey questionnaires in their lecture rooms; leading to 304 valid responses (male = 143, female = 161). Of the total 590 participants, 76% reported having self-employment/ entrepreneurial experience through either a personal venture or a family business.

## Measures

### *Internal Locus of Control*

Control beliefs were operationalized by assessing internality locus of control. The multidimensional locus of control scale (Levenson, 1973) was used. For the purpose of this study, we used items that specifically measure internality of locus of control (8 items,  $\alpha = .73$  sample item: when I make plans, I am almost certain to make them work; 1 = strong disagree, 6 = strongly agree).

### *Culture*

Culture was measured on the individualism dimension following (Hofstede, Hofstede, & Minkov, 2010). Culture (particularly the individualism or independence orientation) is applied as an operationalization for normative beliefs; given that in relation to normative beliefs in planned behavior theory, individualism is a cultural dimension that defines how an individual relates with the social environment in terms of looseness of ties between members (Hofstede et al., 2010; Sharma, 2010). We measure culture by employing Hofstede's tool for differentiating nature cultures (in our analyses and discussion referred to as "country"). Particularly regarding individualism, Germany is rated high (67) and East Africa – specifically Kenya rated low (25) (Hofstede et al., 2010, also refer to: <https://geert-hofstede.com/national-culture.html>). In our analysis, we code German as 1 and East Africa as 0.

### *Attitudes*

Entrepreneurial attitudes were measured using Schwarz et al. (2009) questionnaire; which measures specific attitudes. The questionnaire measures different entrepreneurially relevant

attitudes on a 5-point Likert scale (1 – strongly disagree to 5 – strongly agree). Two items relating to the general attitude towards entrepreneurship were adopted ( $\alpha = .72$ ; sample item: I would rather establish a new company than be the manager of an existing one).

#### *Intentions for Self-employment*

Intentions for self-employment were measured by using (Francisco Liñán & Chen, 2009) entrepreneurial intentions questionnaire. The items were rated on a 7-point Likert scale ranging from 1 (totally disagree) to 7 (totally agree). Five (5) items were adopted for this study ( $\alpha = .97$ , sample item: I will make every effort to start and run my own business).

To substantiate that entrepreneurial attitude is conceptually distinct from entrepreneurial/self-employment intention, we conducted a Confirmatory Factor Analysis (CFA) using Amos 21.0 (Arbuckle, 2012). Our findings support the differentiation of entrepreneurial attitude from intentions ( $\chi^2 = 194.87$ ,  $df = .79$ ,  $p < .001$ ,  $\chi^2/df = 2.47$  [ratio  $< 2.5$  indicates a good model fit], CFI = .98, RMSEA = .05) which provided a significantly better fit ( $\Delta\chi^2 = 182.24$ ,  $df = 10$ ,  $p < .001$ ) than a model combining entrepreneurial attitude and intention on one scale ( $\chi^2 = 377.11$ ,  $df = 89$ ,  $p < .001$ ,  $\chi^2/df = 4.24$ , CFI = .95, RMSEA = .07).

#### **Control variables**

Participants were asked to report their age, sex, and if they have prior experience in entrepreneurship/ self-employment. previous entrepreneurship research has indicated that these variables impact on entrepreneurial attitudes, intentions and entry (Beladi & Kar, 2015; Chen, Greene, & Crick, 1998; Gupta & York, 2008; Hsu, Shinnar, Powell, & Betty, 2017; H. Zhao, Seibert, & Hills, 2005). However, in analysis of their impact of self-intentions, results showed and citizenship status had non-significant effects. However, sex affects both interest in business and behavior in operating business (Moult & Anderson, 2005). We therefore controlled for the effects of age, sex and previous entrepreneurial experience in the regression models.

#### **Results**

Table 1 shows the means, standard deviations and correlation matrix for the variables in the study. We observe that internal locus of control and independence orientation are positively correlated to entrepreneurial intentions; while all the three variables are positively correlated to self-employment intentions.

**Table 1.** Descriptive findings and correlation of the study variables

Measure		<i>N</i> Items	<i>M</i>	<i>SD</i>	$\alpha$	(A)	(B)	(C)
Internal locus of control	(A)	8	4.55	.66	.73	1		
Entrepreneurial attitude	(B)	2	3.85	1.17	.72	.18**	1	
Self-employment intention	(C)	5	4.52	2.00	.97	.24**	.43**	1

\*\* $p < .001$ ; Controls: Age, sex, country, previous self-employment experience

We used regression (in PROCESS Macro – model 4) to confirm that internal locus of control and culture are associated to entrepreneurial attitudes and predict intentions. The model also tests for mediational effect of attitudes. Results (Table 2) show that both internal locus of control ( $B = .30$ ,  $CI = .15$  to  $.44$ ) and country ( $B = -1.00$ ,  $CI = -1.18$  to  $-.81$ ) are associated to entrepreneurial attitudes; thus hypotheses 3b and 4a are supported. The regression model in Table 2 shows that none of the control variables predicted entrepreneurial attitudes. On the other hand, age ( $B = -.14$ ,  $CI = -.32$  to  $-.04$ ) and previous entrepreneurial or business related experience ( $B = .54$ ,  $CI = .33$  to  $.75$ ) are associated to self-employment intention. Internal locus of control ( $B = .35$ ,  $CI = .19$  to  $.52$ ), country ( $B = -2.03$ ,  $CI = -2.32$  to  $-1.75$ ) and entrepreneurial attitude ( $B = .53$ ,  $CI = .42$  to  $.63$ ) predicted entrepreneurial intention, thus hypotheses 1, 2, and 3a are supported. The indirect effects were significant ( $B = .15$ ,  $CI = .08$  to  $.25$ ). As indicated by the Sobel test ( $B = .16$ ,  $z = 3.70$ ,  $p < .01$ ), the mediating effect of entrepreneurial attitudes on the relationship between internal locus of control and self-employment intention is confirmed. Thus hypothesis 3c is also supported.

**Table 2.** Predictors of entrepreneurial attitudes and self-employment intentions and the mediation effect

Predictors	Entrepreneurial attitude				Self-employment intention			
	<i>B</i>	<i>SE</i>	<i>LLCI</i>	<i>ULCI</i>	<i>B</i>	<i>SE</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	2.64	.40	.1.85	3.43	1.77	.53	.71	2.83
Age	.03	.07	-.12	.17	-.14	.09	-.32	-.04
Sex	.13	.08	-.03	.28	-.10	.10	-.30	.10
Previous SE experience	.05	.11	-.16	.26	.54	.11	.33	.75
Country	-1.00	.09	-1.18	-.81	-2.03	.15	-2.32	-1.75
Internal LOC	.30	.07	.15	.44	.35	.09	.19	.52
Entrepreneurial attitude					.53	.05	.42	.63
Internal Loc → attitude → intention					.15	.04	.08	.25
Total effect (Internal LOC)					.51	.09	.33	.69
<i>Model summary</i>	$F(5, 584) = 37.25***, R^2 = .25$				$F(6, 583) = 244.67***, R^2 = .63$			
<i>Normal theory test</i>					$B = .16, z = 3.70**$			

\*\*\* $p < .001$ ; \*\* $p < .01$ ; LOC = Locus of control; CIs = 95%; Bootstraps = 5000

Controls: Age, sex, previous self-employment experience

Country (East Africa = 0, Germany = 1); Experience (No = 0, Yes = 1)

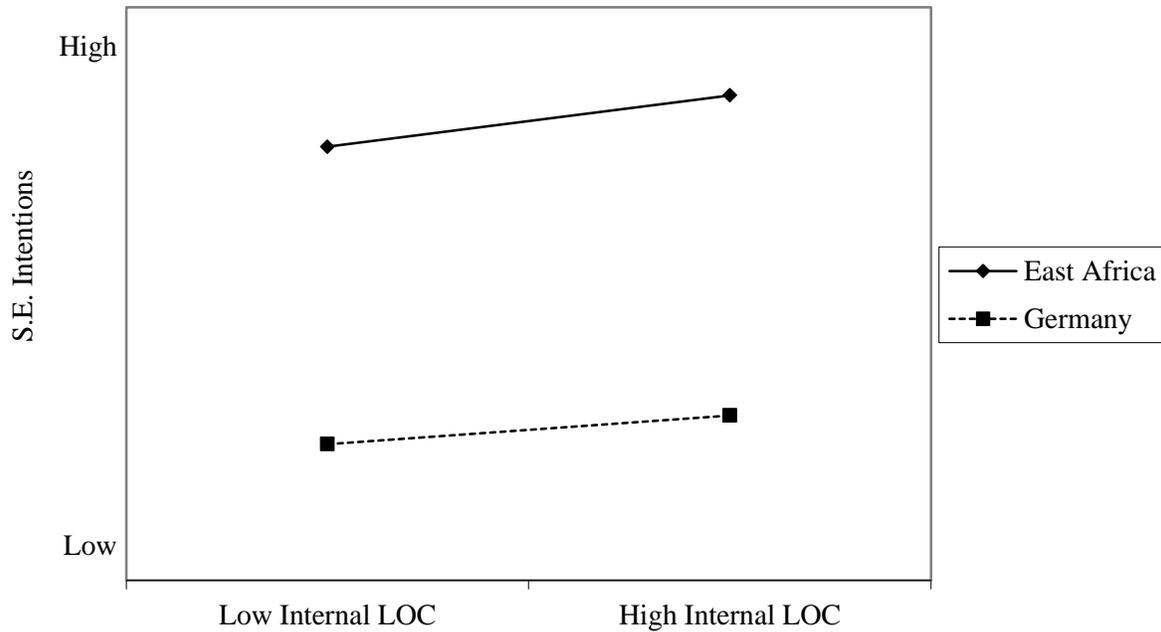
We used PROCESS Macro (Hayes, 2013) to test our conceptual model in Figure 1. We used Model 15 (testing for moderated mediation). Hence the model (Table 3) tested for interactive effects of internal locus of control and individualism (country) on self-employment intentions (hypothesis 4b); and the conditional indirect effects of internal locus of control on intentions via attitudes and moderated by country (hypothesis 4c). The predictor variables were automatically centered by the PROCESS Macro before the analysis. We also applied sample bootstrapping at 5000 in line with Hayes (2013) recommendation, and a 95% bias-corrected confidence interval.

**Table 3.** Bootstrapped moderated mediation effects on self-employment intention

Predictors	Entrepreneurial attitude				Self-employment intention			
	<i>B</i>	<i>SE</i>	<i>LLCI</i>	<i>ULCI</i>	<i>B</i>	<i>SE</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	-.08	.26	-.58	.43	4.46	..33	3.81	5.11
Age	-.21	.07	-.35	-.07	-.10	.09	-.28	.07
sex	.22	.08	.05	.39	-.07	.10	-.27	.12
Previous SE experience	.30	.11	.09	.52	.49	.11	.28	.70
Internal LOC	.43	.07	.29	.58	.34	.08	.17	.50
Entrepreneurial attitude					.56	.05	.46	.66
Country					-2.01	.14	-2.28	-1.74
Entrepreneurial attitude × country					.48	.10	.28	.68
Internal LOC × country					-.15	.17	-.48	.18
<i>Model summary</i>	$F(4, 585) = 17.03^{***}, R^2 = .11$				$F(8, 581) = 181.64^{***}, R^2 = .64$			
<b>Conditional direct effects (by country)</b>								
East Africa					.41	.11	.19	.63
Germany					.26	.12	.02	.50
<i>Conditional indirect effects (by country)</i>					<i>Index</i>	<i>Boot SE</i>	<i>Boot</i>	<i>Boot</i>
							<i>LLCI</i>	<i>ULCI</i>
East Africa					.14	.04	.07	.23
Germany					.35	.07	.23	.49
<i>Index of moderated mediation</i>					<i>Index</i>	<i>Boot SE</i>	<i>Boot</i>	<i>Boot</i>
							<i>LLCI</i>	<i>ULCI</i>
Attitude					.21	.06	.12	.33

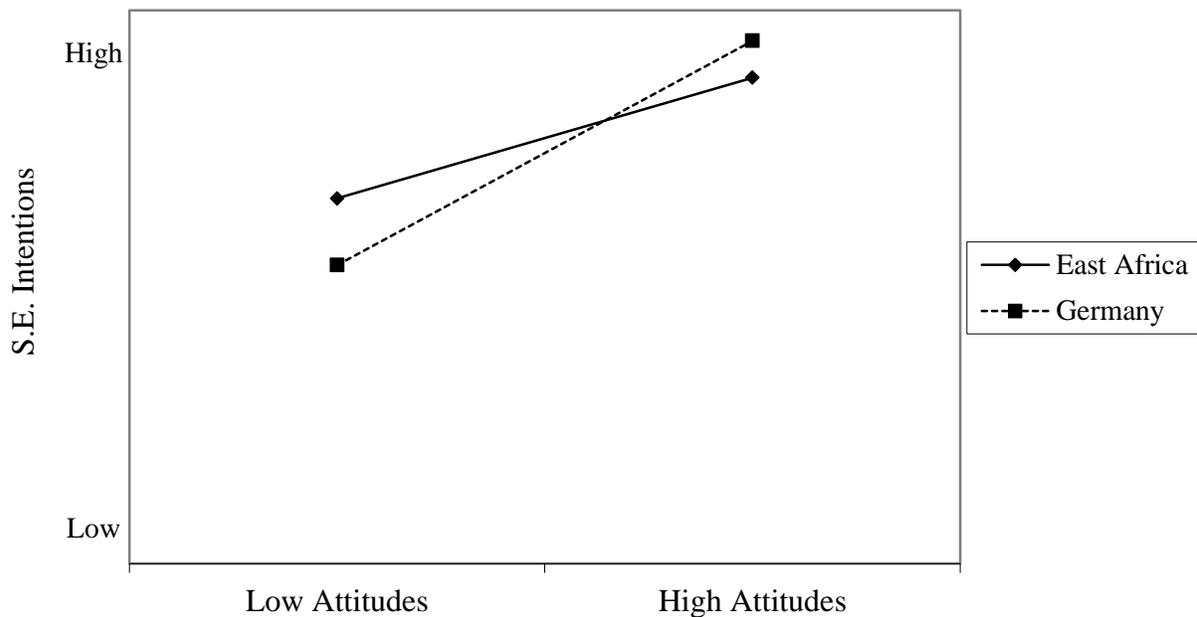
\*\*\*p < .001; CIs = 95%; Bootstraps = 5000; SE = Self-employment; LOC = Locus of control

Controls: Age, sex, previous self-employment experience;



**Figure 2.** Interactive effect of internal locus of control and country on self-employment intentions

Results (Table 3) show that there was a significant effect on self-employment intentions after including the main predictors and control variables, as well as the interactions in the regression model; explaining 64% of the variance in self-employment intentions. This is in line with previous studies which have showed that theory of planned behavior constructs explain 30 – 59% of entrepreneurial intentions (Gelderen et al., 2008; Kautonen et al., 2015; L Kolvereid, 1996; Francisco Liñán & Chen, 2009). The model confirms the direct effect of internal locus of control on intentions ( $B = .34$ ,  $CI = .17$  to  $.50$ ) as well as the effect of attitudes ( $B = .56$ ,  $CI = .46$  to  $.66$ ). Again, among the control variables, previous experience had significant effects on both entrepreneurial attitudes ( $B = .30$ ,  $CI = .09$  to  $.52$ ) and intentions ( $B = .49$ ,  $CI = .28$  to  $.70$ ).



**Figure 3.** Interaction effect of attitudes (mediator) and country on self-employment intentions

Regarding the moderation, the interactive effects of internal locus of control and country on self-employment intentions were not significant ( $B = -.15$ ,  $CI = -.48$  to  $.18$ ). However, the model reveals significant positive conditional direct effects for both East African and German samples. The plots in Figure 2 illustrate that East African students had higher intentions than their German counterparts at both low and high levels of internal locus of control. Self-employment intentions tends to increase in a similar fashion with movement to higher levels of internal locus of control for both samples, confirming the non-significant moderation effect. Therefore, hypothesis 4b is not supported.

In contrast to this finding, the interactive effects of entrepreneurial attitudes (mediator) and country were significant ( $B = .48$ ,  $CI = .28$  to  $.68$ ). Overall, the index of the moderated mediation shows that the indirect effect was significantly conditioned by country ( $B = .21$ ,  $CI = .12$  to  $.33$ ). This result supports hypothesis 4c. The conditional indirect effects were higher for Germany ( $B = .35$ ,  $CI = .23$  to  $.49$ ) than for East Africa ( $B = .14$ ,  $CI = .07$  to  $.23$ ). As is visualized in Figure 3, self-employment intentions for East African students were higher than for German

students at low levels of entrepreneurial attitudes; however, this trend reverses when entrepreneurial attitudes are high. To put it otherwise, attitudes and intentions are more closely linked for Germans than for East Africans.

### **Discussion and Implications**

The aim of this study was to examine the impact of internal locus of control (as an indicator of control beliefs) and individualistic cultural dimension (as an indicator of subjective norm) on students' entrepreneurial attitudes and intentions for self-employment, based on the theory of planned behavior. We studied a population of German and East African university students who are in the final year of their studies because they are, in addition to successfully completing their studies, concerned with employment options after graduation. The theory of planned behavior suggest that behavior is a function of intention, which is also shaped by behavior-specific attitudes, subjective norm and perceived behavioral control (Ajzen, 2002; Ajzen, 1991). Previous research based on this theory reveal that intentions predict actual behavior (e.g. Kautonen et al., 2013; Krueger et al, 2000). In the present study, focusing on internal locus of control and individualism as specific indicators of control and normative beliefs respectively; we posit that internal locus of control impacts intentions indirectly via entrepreneurial attitudes. We further posit that direct and indirect effects of locus of control are moderated by individualism.

Our results show that particularly, the indirect impact of locus of control seems to be less affected by cultural factors and differences in economic development. Beyond this effect, the current study contributes to the understanding of interaction of personal and cultural factors in explaining entrepreneurial behavior. The findings show that the interaction between individualistic culture and believe in one's ability to control own behavior is important for development of self-employment intentions. Self-employment, like other business situations involves a high level of risk (Orobia et al., 2011; Pak, 2013). Thus the belief that one can have personal control over such circumstances is important to formation of positive attitudes and intention for self-employment. When an individual believes that the requirements for self-employment are beyond his capability or the business environment is complex beyond his ability to have control, he or she is likely to think negatively of self-employment as a viable career

alternative. However, it is also important if an individual is in a position to make independent decisions and actions without relying on or worrying about the opinions of significant others.

Attempts to define entrepreneurial cultures have emphasized characteristics of individualism, power inequality, ambiguity tolerance, masculinity as well as focus on the long-term orientation (e.g. Baughn & Neupert, 2003; Lee, Lim, & Pathak, 2011; Lee & Peterson, 2000; Schlaegel, He, & Engle, 2013). The current findings support, especially the moderated indirect effects this literature in highlighting particularly the role of interaction between individualism and personal characteristics in promoting entrepreneurship. There are empirical findings suggesting individuals are attracted to self-employment because it offers high level of autonomy at the workplace compared to salaried-employment (Binder & Coad, 2013; Croson & Minniti, 2012).

On the other hand, there is research highlighting that in some situations, individualism may be a hindrance to entrepreneurial intentions. This suggests that collectivism is also important for entrepreneurial intentions (e.g. Aramand, 2013; Schlaegel et al., 2013). This can explain the differences between German and East African students. Our results reveal that East African students had higher self-employment intentions. In addition, the effect of internal locus of control on intention was higher for East African students; although the effect of internal locus of control on intentions via attitudes was higher for German students. Regarding cultural explanations, also the effects of risk tolerance might play a role. Entrepreneurship activity in Germany is general seems to be strongly affected by a high levels of risk aversion (Caliendo, Fossen, & Kritikos, 2009; Wagner, 2005). However, East African students generally reported higher intentions, which may be attributed to socio-economic factors, beyond the cultural factors. First, the majority of the East African sample was drawn from Uganda, which ranks high on youth entrepreneurial propensity (Singer, Amorós, & Moska, 2015). Second, we find high youth unemployment rates in the region, which is a key push factor for self-employment (Abada et al., 2014; Oh, 2008).

Further in relation to the individualistic cultural dimension, some of previous research has highlighted that collectivism is not necessarily bad for entrepreneurship (Aramand, 2013; Siu & Lo, 2013). East Africa is more collectivistic than individualistic, where social relations are valued. Therefore, the quality of relationships with others are important for some individuals in the process of becoming self-employed. For example, given low incomes hence challenges in

startup capital, young people rely on their parents or significant others for startup funding as well as approval of self-employment activity or idea. A logical conclusion to this effect is drawn by (Siu & Lo, 2013) that for people who value connectedness, the significant others influence the entrepreneurial intent. Yet the views of significant others are quite less influential for the individuals who value independence. Hence at the multivariate level, we observe that entrepreneurial attitudes have higher effect on intentions in individualistic society (Germany) than in a collectivistic society (East Africa).

Our findings also have empirical contributions to the study of self-employment or entrepreneurship, as well as application of the theory of planned behavior. Studies applying theory of planned behavior to entrepreneurship intentions have demonstrated that the model explains significant variance in entrepreneurial intentions (e.g. Gelderen et al., 2008; Kautonen et al., 2015; Malebana, Studies, Malebana, & Africa, 2014; Tsai et al., 2016). Although we measure limited aspects of control and normative beliefs, the findings demonstrate not only mediational but also interactional influences the components of the model have on self-employment intentions, which improves the predictive power. The results also demonstrate that the application of the planned behavior model to self-employment intentions could be affected by differences between societies which may be linked to national cultures and development context.

Entrepreneurial culture has often been studied at national level based on Hofstede (1984) model. This model is not only a complete representation of national cultures, but has also provided basis of studying entrepreneurial cultures and predicting entrepreneurial behavior (e.g. Lee & Peterson, 2000; Mueller & Thomas, 2001; Swierczek & Quang, 2004; Vinogradov & Kolvereid, 2007). Our study further confirms the value of the national culture for entrepreneurial promotions. More precisely, we show that it is at least relevant in explaining attitudes and intentions for self-employment. However, the contribution of socio-economic factors should also be considered in estimating the effect of culture on entrepreneurial attitudes and intentions.

Besides the theoretical and empirical implications, the study also has implications for policy development relating to promotion of self-employment. Self-employment promotion is currently a concern for governments and development partners in both developing and developed countries. This push for self-employment particularly arises from economic challenges such as unemployment and changing work arrangements and preferences, particularly emphasis on the

service sector (Abada et al., 2014; Baumgartner & Caliendo, 2008; Michael Fritsch, Kritikos, & Rusakova, 2012; Oh, 2008). The present study contributes to the understanding of factors important to formation of positive attitude and intention for self-employment. We have demonstrated that high internal control beliefs and individualistic values impact on behavioral attitude. These are important for entrepreneurial education and promotion programs. We propose that support programs for prospecting entrepreneurs should highlight perception of personal competence and control as well as individualistic values.

### **Strengths, Limitations and Ideas for Future Research**

Our study has a few strengths. First, we studied a population of students that are at the end of their university studies. This is a time when young persons are considering the available and feasible employment options. It is therefore a good time to evaluate attitudes and intentions to become self-employed or to become a salaried worker. Second, we used a sample from different universities in Germany and East Africa. Therefore, our findings can apply to developing and developed countries, as well as in different cross-cultural application.

The study has, nonetheless, two major limitations that should be considered when generalizing or applying our findings. First, the use of a cross-sectional dataset might be critical. Thus we did not establish whether the entrepreneurial attitudes and intent for self-employment remain the same or change after graduating from university. Second, our sample consists of only students in their final semester of their bachelor, diploma, or masters courses. It may therefore not be representative of the general student and youth populations.

Future research could employ a longitudinal approach to establish whether attitudes and intentions for self-employment are maintained or change after graduating from university. It could also be interesting to study how entrepreneurial attitudes and intent changes at different levels of education, from high school through different years at college and after graduation. Other variables such as social networks (particularly having family members and friends who are engaged in business) could be considered as well, particularly as moderators in the relationship between control beliefs, cultural orientations, attitudes and intention for self-employment.

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**Manuscript #5**

**Self-Determination and Entrepreneurial Intentions: The Role of Autonomy in the  
Mentoring – Intentions Relationship**

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### **Abstract**

**Purpose:** The paper examines the role of self-determination in entrepreneurial intentions. We specifically investigate if autonomy as well as cross-cultural differences would moderate the relationship between entrepreneurial mentoring and intentions.

**Methodology:** The sample comprises of 1,509 (799 final year university students, 220 unemployed, and 490 wage-employed) youths from Germany, Kenya and Uganda. Therefore, a multi-group analysis is applied to test for differences in the impact of mentoring and autonomy on entrepreneurial intentions.

**Results:** The findings indicate that mentoring and autonomy are positively correlated to entrepreneurial intentions. Entrepreneurial mentoring and intentions were lower among German participants than for the East African countries. The moderated moderation results revealed that entrepreneurial mentoring is related to higher entrepreneurial intentions among students and the unemployed, and when individuals have higher levels of autonomy. Country level analysis showed that interactive effects of mentoring and autonomy are highest in Germany and lowest in Uganda.

**Research/Practical implications:** Mentoring and self-determination play an important role in development of entrepreneurial intentions. Entrepreneurship mentors should specifically support their protégées to develop the ability to act autonomously as an important entrepreneurial competence. However, culture, and country's economic conditions also matter. Future entrepreneurial intentions research should also examine the impact of availability of attractive positions in wage-employment.

**Originality/ Value:** A major challenge in entrepreneurial intention research is the predominant focus on student populations. The present study demonstrates how intentions differ between students, unemployed, and those already in salaried employment. Similarly, the impact of mentoring on entrepreneurial intentions also differ in these groups. Moreover, cross-country analysis of variations in intentions between a developed individualistic country and less developed collectivistic country is made.

### **Key Words**

Autonomy; Entrepreneurial intentions; Entrepreneurial socialization; Mentoring; Self-determination theory

## Introduction

The idea that self-employment or entrepreneurship is essential for economic growth and development has been around for nearly a century, since (Schumpeter, 1934) demonstrated its value to creating employment. Fast forward, the world is today facing an unemployment crisis, with at least 470 million jobs needed for new labour market entrants only (United Nations, 2015). Two ideas that are important today emerge from Schumpeter's proposition. First, self-employment is a process involving creation of new organizations thus offering employment opportunities (Wolff and Nivorozhkin, 2012). Second, by creating new organizations and providing employment, self-employment contributes directly to economic development of a country (Ireland and Webb, 2007; Skriabikova et al., 2014; Valliere and Peterson, 2009; Wolff and Nivorozhkin, 2012). Even for less developed countries, self-employment is making significant contributions to economic resilience and used as a strategy for reducing unemployment and household poverty (Ahn, 2015; Falco and Haywood, 2016; Gindling and Newhouse, 2014).

Following this consensus that self-employment is good for economy and individuals, scholars continue to debate what attracts or motivates individuals into this career alternative. Answers generated in this debate are essential in the process of promoting entrepreneurship, consequently important for economic development (Yıldırım et al., 2016). In recent decades, research has specifically focused on intentions, based on theory of planned behaviour (Ajzen, 1991) and subsequent findings that intentions predict much of entrepreneurial behaviour (Van Gelderen et al., 2015; Kautonen et al., 2013, 2015). For over three decades of research on entrepreneurial intentions, employing different perspectives, scholars have situated these intentions in different personal and situational factors, mostly personality attributes (Brandstätter, 2011; Littunen, 2000; Obschonka and Stuetzer, 2017; Sesen, 2013; Zhao et al., 2010), cognition and planned behaviour (Barbosa, Gerhardt, and Kickul, 2007; Kautonen, van Gelderen, and Fink, 2015; Krueger, Reilly, and Carsrud, 2000; Mitchell et al., 2002; Shepherd and Krueger, 2002). Other studies have attributed self-employment intentions and entry to economic factors, particularly unemployment, job insecurity and utility evaluations (Baumgartner and Caliendo, 2008; Blanchflower, 2000; Falco and Haywood, 2016; Hughes, 2003), as well as entrepreneurial socialization including training and culture (Adamonienė and Astromskienė, 2015; Contiua et al., 2012; Falck et al., 2012; Fritsch and Rusakova, 2012; Licht, 2010; Starr and Fondas, 1992).

From the socialization perspective, we focus on the effect of mentoring in the development of self-employment intentions. However, we posit that mentoring should not only focus on development of hard skills, but should also be motivational to inspire individuals into self-employment, in line with St-Jean's (2012) categorization of mentor's functions. We also re-emphasize the idea that entrepreneurial mentoring should further aim at enabling individuals to develop competences for autonomous action.

Whereas mentoring has potential to inspire individuals into self-employment directly or indirectly through mediator factors such as attitudes and self-efficacy (BarNir, Watson, and Hutchins, 2011; Kyrgidou and Petridou, 2013; Piperopoulos and Dimov, 2015); our main assumption is that existence of a motivational force such as need to gratify psychological needs strengthens or weakens the effect, hence the basis for our focus on self-determination theory. Self-determination, an important perspective widely applied in studying vocational motivations and behaviour however appears less prominent in entrepreneurial intentions research. Self-determination has been applied in fewer studies on choice of self-employment (e.g. Callahan, Shumpert, and Mast, 2002), and loosely mentioned especially in research linking autonomy to intentions for, and as an outcome of, self-employment (Caballero, 2017; Croson and Minniti, 2012; Kolvereid, 1996; Kolvereid and Isaksen, 2006; van Gelderen and Jansen, 2006). Self-determination theory provides a framework for understanding human motivation; situating inspiration for behaviour in intrinsic goals such as interests and curiosity as well as extrinsic forces (Deci and Ryan, 2011; Gagné and Deci, 2005; Peco et al., 2006). It is posited that self or autonomous motivation, which is volitional in nature and most essential of persistence in a behaviour, is enhanced by factors supporting fulfilment of basic psychological needs of autonomy, competence, and relatedness (Deci et al., 2001; Ryan and Deci, 2000). The present study particularly focuses on need for autonomy, an important need that most people seek in workplace (Otto et al., 2013).

The primary contribution of the present study is to draw from self-determination theory in explaining conditions necessary from development of entrepreneurial intentions. Moreover, it also builds on commonly applied perspectives of entrepreneurial socialization and behavioural intentions. Subsequently, the paper also makes a case for adaptation of unified models in explaining entrepreneurial intentions and venture creation behaviour. In spite of widely applied and efficacious entrepreneurial intentions models that explain big variances in intentions, the

predictive power can be enhanced further with application of unified models. Whereas there have been calls and proposals for unified models in the study of entrepreneurial intentions, such as mix of positivism and humanistic approaches (Liñán and Fayolle, 2015), their application is not yet extensive. Additionally, although there has been a lot of research on intentions in the past three decades, such research has largely used student samples hence the generalizability of findings is limited (Kautonen et al., 2013; Roy et al., 2017). The present study contributes to the generalizability of entrepreneurial intentions research by focusing on different groups including the students who are in their final year of university study preparing for entry into the labour market, salary-employed and unemployed individuals from three countries. This could also enhance the cross-cultural generalizability of entrepreneurial intentions results.

The remainder of the paper is structured in four sections. Section 2 focuses on the theoretical framework and development of hypotheses. The section introduces the self-determination theory, particularly focusing on the need for autonomy and how it relates to mentoring in influencing intentions. Section 3 describes the methodology used in the study including the sample, measurement and analysis strategy. Section 4 presents the results of the study. Section 5 discusses the results including conclusions, practical implications, and limitations.

*Insert Figure 1 around here*

### **Theoretical Framework and Hypotheses**

The concept of behaviour intentions is rooted in Ajzen's (1991, 1985) *theory of planned behaviour*. Intentions refer to the readiness to engage in a given behaviour (Ajzen, 2011). Entrepreneurial or self-employment intention, therefore, is the readiness of individuals to establish a business venture (Thompson, 2009). From the planned behaviour perspective, entrepreneurial intentions are the best predictor of entrepreneurial behaviour or start up, although this may depend on additional factors such as self-control (Van Gelderen et al., 2015). Intentions themselves are precedent on attitudes, subjective norm and behavioural control (Ajzen, 1991). All the three factors can be shaped through mentoring, yet their role can also be influenced by perceived freedom to act or the pursuit for freedom at work.

Moreover, entrepreneurial intentions and behaviour have also been linked to several personal and environmental influences. From the behavioural perspective, learning is one process that can enhance development of intentions for self-employment. This study focuses on

entrepreneurial mentoring as a socialization process that has potential to influence entrepreneurial intentions. *Entrepreneurial Socialization Model* (Starr and Fondas, 1992) suggests that the choice to become self-employed is influenced by predisposing characteristics and experiences; whereby socializing agents such as mentors, family, and peers provide important resources such as knowledge, skills, and information for adopting the entrepreneurial role (Krueger, 2007; Starr and Fondas, 1992). Mentoring is one form of entrepreneurial socialization process involving an experienced entrepreneur supporting a protégé in acquiring necessary skills for growing his or her career (Beckett, 2010; Gong et al., 2011; St-Jean and Audet, 2012; Xiao and North, 2016).

Mentors particularly support their protégées in various ways, based on the expertise and needs of the protégée. This includes coaching, role modelling, experience sharing, practical training, support in obtaining resources and networks, and information provision (Beckett, 2010; Gong et al., 2011; Radu Lefebvre and Redien-Collot, 2013). These processes increase the skill set of the prospecting entrepreneurial, thus improved competence for opportunity recognition and efficacy for action. This is reflected in entrepreneurial training research and models highlighting the impact of role models, training and mentors in entrepreneurial processes and outcomes (e.g. Honig, 2004; Pretorius, Nieman, and van Vuuren, 2005; Van Auken, Fry, and Stephens, 2006). Whereas recent research has emphasized entrepreneurial education (e.g. Bae et al., 2014; Fayolle et al., 2006; Piperopoulos and Dimov, 2015; Xiao and North, 2016), the present study focuses on entrepreneurial mentoring that occurs in different forms including formal and informal forums. Informal entrepreneurial learning forums such as role modelling, learning from entrepreneurial parents or friends are also important in enhancing the skills and attitudes of prospecting entrepreneurs (Ahmed et al., 2017). Moreover, interactive learning settings that particularly involve learning from owners or industrial partners results in better outcomes for entrepreneurship students (Autio et al., 2001; Fayolle and Gailly, 2015a; Huq and Gilbert, 2017). From the theory of planned behaviour, intention is an initial outcome in the process of venture creation, which is likely to translate into entrepreneurial start-up. Previous research has indicated that participation in mentoring activities results into increased intention as well as start-up (e.g. Bosma, Hessels, Schutjens, Praag, and Verheul, 2012; Fayolle and Gailly, 2015; Solesvik, 2013; Xiao and North, 2016). We therefore hypothesize that:

*H1. Mentoring is positively related to entrepreneurial intentions*

The principal contribution of this study relates to sources of motivation as possible conditioning factor for development of entrepreneurial intentions. A major theoretical foundation in understanding human motivation is *Self-Determination Theory* (Deci, 1973; Deci and Ryan, 2011, 1980) which posits that behaviour is motivated by aspirations that are either rooted internal in the person (intrinsic motivation) or to external separable outcomes (extrinsic motivation). However, self or autonomous motivation, consisting of intrinsic and some forms of extrinsic motivation, is considered more critical in causing and sustaining behaviours (Deci and Ryan, 2008; Gagné and Deci, 2005) as these forms of motivation are related to inherent interest in, or the joy an individual derives from the behaviour (Ryan and Deci, 2000). Engagement in inherently interesting or enjoyable activities is posited to be important for psychological growth (Deci and Ryan, 2000).

Consequently, motivation for engaging in activities that individuals find interesting or enjoyable is facilitated by the desire to satisfy the three basic psychological needs: autonomy, competence, and relatedness (Deci and Ryan, 2000). It is these needs that people seek to satisfy from their work and career activities; therefore, they are central to autonomous motivation and persistence in a given activity (e.g. Calvo, Cervelló, and Jiménez, 2010; Welters, Mitchell, and Muysken, 2014). These needs play a role in setting aspirations and therefore also in career choices, given that their fulfilment facilitates optimal functioning (Deci and Ryan, 2008). Accordingly, it is one of the basic conditions that people require in the workplace (Otto, Rigotti and Mohr, 2013). In entrepreneurship literature, the need for autonomy has been highlighted as an attitude or a form of independence. However, in the perspective of self-determination, autonomy is rather a psychological need and therefore different from individualism (Chirkov et al., 2003), and could also be different from an attitude in this perspective. Autonomy refers to self-organization and self-regulation in pursuit of goals (Deci and Ryan, 2000; Lumpkin, Cogliser, and Schneider, 2009). This independence in pursuit of work goals is increasingly an important contributor to changing work roles and work arrangements (Croson and Minniti, 2012; van Gelderen, 2010). Research has shown that self-employed individuals enjoy more autonomy than people in other forms of employment (Hundley, 2001; Lange, 2012; Schneck, 2014). Therefore, the need for autonomy is likely to motivate individuals to choose entrepreneurship as a career, therefore related to entrepreneurial intentions.

## *H2. Need for autonomy is positively related to entrepreneurial intentions*

In the present study, we posit that the need for autonomy plays an important conditioning role in the impact of mentoring on entrepreneurial intentions. Studies that have focused on independence show that entrepreneurship intentions and entry are higher among societies that value autonomy of action (e.g. Liñán et al., 2016; Rantanen and Toikko, 2017; Taylor and Wilson, 2012). Based on these relationships, we postulate that mentoring has higher impact on entrepreneurial intentions when individuals have higher need for autonomy.

However, this conditioning role of autonomy is likely to vary among individuals depending on employment status as well as country. Both autonomy and entrepreneurial intentions vary among different groups depending on various factors such as culture and economic conditions. Previous research demonstrated the positive effects of entrepreneurial mentoring or education among students and other groups such as women and immigrants (Austin and Nauta, 2016; BarNir et al., 2011; Hussain et al., 2010; St-Jean and Mathieu, 2015). In the present study, we apply a multi-group analysis to establish the differential impact of mentoring on intentions between students, employed and unemployed individuals. We expect similar effects of mentoring or entrepreneurial education on intentions, as those found in previous studies among groups of women, students, and immigrants, could be observed among the unemployed. However, such effects may not necessarily be present among the employed individuals. From the self-determination theories, employment is a source of psychological wellbeing, which motivates work (Deci et al., 2001) and job search behaviours. Yet for the unemployed, self-employment could be a feasible route to income and improving one's wellbeing; and coupled with mentoring, can result into higher entrepreneurial intentions. Moreover, unemployed persons and students are likely to have lower autonomy since they have to depend on others or institutions for support. This may increase their willingness for self-employment, in pursuit for gratification of their need for autonomy.

Regarding country differences, there are variations in entrepreneurial intentions arising from culture (Liñán and Chen, 2009; Shinnar et al., 2012) and economic development. Particularly, it has been reported that individuals in less developed countries tend to have stronger entrepreneurial intentions (Iakovleva et al., 2011). Yet these differences also tend to affect entrepreneurial learning outcomes (Van Auken, Stephens, et al., 2006). However, it is likely that the quality of mentoring in developed countries, compared to less developed

countries, would have higher impact on entrepreneurial intentions. In addition to quality of mentoring, individuals in developed countries are more likely to have stronger attitudes when mentored because of accessibility to resources required to implement the intentions. We therefore propose that there are both two-way and three-way interaction effects of mentoring, autonomy and employment status/country on entrepreneurial intentions.

Regarding the two-way interactions, we hypothesize that:

*H3a.* Autonomy moderates the relationship between mentoring and entrepreneurial intentions, such that the effects of mentoring are higher for individuals with high levels of autonomy

*H3b.* Effects of mentoring on entrepreneurial intentions are moderated by employment status such that intentions are higher for students and unemployed but lower for the employed individuals

*H3c.* Effects of mentoring on entrepreneurial intentions depend on the level of economic development, and thus are higher for Germany than for Kenya and Uganda.

Regarding the three-way interactions, we hypothesize that:

*H4a.* The effects of mentoring on entrepreneurial intentions are higher at high levels of autonomy for students and the unemployed but not for the employed individuals.

*H4b.* The effects of mentoring on entrepreneurial intentions are higher at high levels of autonomy for individuals in Germany than their counterparts in Kenya and Uganda

## **Methodology**

### ***Participants***

Survey data were collected from a cross-cultural sample of 1,509 (751 males, 745 females and 5 identifying as other) individuals from Germany, Kenya and Uganda. The German sample totalled to 387 participants (198 males and 179 females); including 289 students and 93 employed individuals. The Kenyan sample comprised of 412 participants (204 males and 208 females). These included 213 students, 47 unemployed, and 152 employed individuals. The Ugandan participants were 707 (349 males and 352 females). Of these, 289 participants were students, 173 were unemployed, while 245 were employed. Further details of the sample regarding distribution by country, gender and employment status are shown in Table 1. The

study targeted young individuals, hence participants were in the age range of 18 to 35 years; Germany ( $M = 25.57$ ,  $SD = 2.09$ ), Kenya ( $M = 24.67$ ,  $SD = .08$ ), and Uganda ( $M = 24.37$ ,  $SD = .75$ ). It should be noted that standard deviations for age are very low because the responses were grouped into age ranges.

*Insert Table 1 around here*

Participants were recruited in various ways depending on the employment status and country. German participants were all recruited through online invitations to participate in the study. For the student sample, students in the final year of their university studies (Bachelor, Diploma, and Master) were invited to participate in the survey through the student mailing list of Philipps-University Marburg. The employed participants were also recruited through circulation of the invitation on their companies' mailing lists. On the other hand, student participants in Uganda and Kenya were recruited through their classes, where they were invited to respond to the survey questionnaire. The unemployed participants were recruited through youth associations and forums that support unemployed youths. Finally, the employed participants in Uganda and Kenya were invited through companies' administration to participate in survey. In both countries, data were collected by means of paper and pencil.

### **Measures**

*Mentoring:* The instrument to measure mentoring was purposively developed for this study. The instrument consisted of 22 items (sample item: I have been provided with practical suggestions for starting a business). The entire instrument can be found in appendix 1. Items measured the frequency of access to or participation in different aspects of entrepreneurial mentoring on a 5-point Likert type scale; 1 (Never) to 5 (Always). The instrument had high internal consistency with  $\alpha = .96$ .

*Autonomy* was measured with items from Deci and Ryan Basic Psychological Needs scale (see: Samman, 2007; pp 464-465). The instrument consists of three items measured on a 4-point scale from 1 (not at all true) to 4 (completely true). A sample item is "I feel like I am free to decide for myself how to live my life". A satisfying Cronbach alpha coefficient ( $\alpha = .74$ ) was observed.

*Entrepreneurial intentions* was measured using the entrepreneurial intentions questionnaire (Liñán and Chen, 2009). Items were rated on a 7-point Likert scale ranging from 1

(totally disagree) to 7 (totally agree). The instrument composed of six (6) items ( $\alpha = .97$ , sample item: I am determined to create a business of my own in the future).

## Results

Descriptive statistics and partial correlations are displayed in Table 2. The MANOVA in Table 3 shows mean differences in entrepreneurial mentoring, autonomy and entrepreneurial intentions among groups (by employment status and country). Respondents in Germany reported significantly lower access to entrepreneurial mentoring and lower intentions than respondents in Uganda and Kenya, but there are no significant differences in level of autonomy. Regarding differences according to employment status, the employed reported significantly lower autonomy and entrepreneurial intentions than the students and unemployed, but mean differences on entrepreneurial mentoring were not significant.

*Insert Table 2 around here*

To test our hypotheses, we used PROCESS macro 2.16.3 (Hayes, 2013) models 1 and 3 for regression analyses. We also applied bootstrapping at 5000 as suggested by Hayes (2013). We used the PROCESS model 1 for the two-way interactions (Table 4) in three separate models. In all the three models, we found similar positive effects of mentoring on entrepreneurial intentions; Model 1 ( $B = .47, p < .001$ ), Model 2 ( $B = .48, p < .001$ ) and Model 3 ( $B = .45, p < .001$ ). These findings support *H1*. We also found positive effects of autonomy on entrepreneurial intentions in Model 1 ( $B = .33, p < .001$ ), hence *H2* is confirmed.

We next tested for the interactive effect of mentoring and autonomy on entrepreneurial intentions, while controlling for the effect of sex, employment status and country. In the first model, we found a significant positive effect ( $B = .17, p < .01$ ). The regression plot in Figure 2a shows that entrepreneurial mentoring has a higher association with intentions when individuals have higher levels of autonomy, hence *H3a* is confirmed. The second model tests for the moderating effect of employment status on the relationship between entrepreneurial mentoring and intentions, while controlling for effects of sex and country. Our results show a significant negative interaction effect ( $B = -.50, p < .001$ ). Figure 2b shows that mentoring is highly and moderately related to intentions among students and the unemployed respectively, but no relationship is observed for the employed individuals, also as reflected by the conditional effects in Table 4 ( $B = .04, CI = -.05$  to  $.12$ ). This finding confirms *H3b*. The third model tests for the

moderating effect of cultural differences (country) on the relationship between mentoring and entrepreneurial intentions; controlling for effects of sex and employment status. A significant positive interactive effect is observed ( $B = .38, p < .001$ ). The plots in Figure 2c and the conditional effects in Table 4 show that entrepreneurial mentoring tend to be highly correlated to intentions among German respondents ( $B = .77, CI = .67$  to  $.86$ ), and relatively low among Ugandan respondents ( $B = .15, CI = .04$  to  $.26$ ), hence H3c is also confirmed.

*Insert tables 3 – 5 around here*

We also conducted regression analyses for three-way interactions to examine whether the moderating effect of autonomy on the relationship between entrepreneurial mentoring and intentions are conditioned by employment status and country. First, in Model 4 (in Table 5), we examine the three-way interaction effect of mentoring, autonomy and employment status. We found no significant effect ( $B = -.01, CI = -.07$  to  $.11$ ). The effect of interaction between mentoring and autonomy at all levels of employment status (students, unemployed, and employed) were not significant. Figures 4a and 4b confirm that entrepreneurial mentoring is positively related to intentions at all levels of autonomy for the student and unemployed samples. However, intentions are in general higher at high levels of autonomy. Therefore, *H4a* is not supported. Second, in Model 5, we test the three-way interaction effect of mentoring, autonomy and country. Similar to Model 4, we do not find a significant effect ( $B = -.01, CI = -.15$  to  $.13$ ), hence *H4b* has also to be rejected. But, we observe that the interaction between mentoring and autonomy had significant positive effects on intentions for all three samples: Uganda ( $B = .18, CI = .01$  to  $.35$ ), Kenya ( $B = .17, CI = .06$  to  $.29$ ), and Germany ( $B = .17, CI = .01$  to  $.31$ ). Regression plots in Figures 3a show that for the Ugandan samples, entrepreneurial intentions are positively related to mentoring at high level of autonomy. Figures 3b and 3c show that among Kenyan and German samples, intentions were positively correlated to mentoring at all levels of autonomy, but relatively higher when level of autonomy is high.

*Insert figures 2 – 4c around here*

## Discussion

The main purpose of the present study was to assess the impact of self-determination (autonomy) on the relationship between mentoring and entrepreneurial intentions among groups of students, unemployed as well as employed individuals in Germany, Kenya, and Uganda. In

more specific terms, the study examines how the feeling of autonomy helps mentoring to result into higher impact regarding entrepreneurial intentions. This is essential for increasing start-ups among young people, given that from the planned behaviour theory, intentions are said to be best predictors of start-up behaviour (Kautonen et al., 2015; Nabi and Liñán, 2013). However, we examine how this process varies according to employment status and between a developed country in Europe (Germany) and less developed countries in East Africa (Kenya and Uganda). Consequently, a moderated moderation analysis used in this study incorporates employment status and country. These resulted in robust regression models, explaining high percentages of variances in entrepreneurial intentions. All hypothesized relationships were confirmed, with exception of hypotheses 4a and 4b.

Concerning *H1*, findings revealed that mentoring is positively related to entrepreneurial intentions. This finding was consistent in all five regression models computed in the analysis, suggesting that entrepreneurial mentoring is in most circumstances linked to higher entrepreneurial intentions. Certainly, mentoring of any kind will improve one's entrepreneurial competences (Liñán, 2008; Starr and Fondas, 1992), which increase the possibility of choosing an entrepreneurial career and eventual start-up as already highlighted in previous studies (e.g. Bosma et al., 2012; Xiao and North, 2016). Therefore, mentoring is an important input that needs to be incorporated in interventions seeking to promote entrepreneurial start-ups. In the case of less developed countries with exacerbating youth unemployment, as in Africa for example, self-employment is increasingly being promoted as the most available solution. Such interventions tend to highlight start-up funding as well as training in form of specialized course in higher institutions of learning and establishment of entrepreneurship centres. Hence Ugandan and Kenyan participants reported high access to entrepreneurial mentoring compared to their German counterparts.

An important question addressed by this study is whether mentoring has similar effects on entrepreneurial attitudes among different groups and across countries. Results relating to *H3b* indicate that impact of mentoring on entrepreneurial intentions is highest among students and marginal among employed individuals. Although the unemployed report higher access to mentoring, the impact on intentions in this group seems not as strong as it is among students. Most of previous studies on entrepreneurial mentoring have been conducted on student populations (e.g. Murphy, 2011; Radu Lefebvre and Redien-Collot, 2013) and actually most

research tackle the subject from an entrepreneurial education perspective (Bekirogullari et al., 2012; Fayolle and Gailly, 2015b; Nabi et al., 2016; Piperopoulos and Dimov, 2015).

Nonetheless, similar to our findings, the consensus in these studies is that mentoring increases entrepreneurial intentions among students.

Similar to effects of mentoring on entrepreneurial intentions among minority or disadvantaged groups (Austin and Nauta, 2016), findings of the present study show that mentoring is related to higher intentions among populations of unemployed people. For some, depending on the reason for being unemployed, entrepreneurship or self-employment presents an opportunity out of unemployment. In line with Davidsson's (1995) model where he situates entrepreneurial intentions in background factors, employment situation and conviction, being an employed and the desire to change this status already pre-disposes unemployed individuals to developing entrepreneurial intentions. Therefore, when they are encouraged by mentors or are helped to acquire some entrepreneurship knowledge, attitudes and skills, their entrepreneurial intentions develop further and are most likely implemented.

As expected, the findings indicate that mentoring has nearly negligible effects on entrepreneurial intentions among employed individuals. Davidsson (1995) proposed that entrepreneurial intentions are chiefly determined by conviction that establishing one's own firm is a fitting alternative for the person, which also partly depends on one's current employment status. Therefore, employed individuals, especially when satisfied in their jobs, may not have the conviction for change of career path from salaried to self-employment. Hence, entrepreneurship mentoring given to employees may not necessarily be impactful, unless if the mentoring is geared towards intrapreneurship. In this direction, it has been observed that lack of entrepreneurship friendly environment in workplaces leads to dissatisfaction to employees with entrepreneurial minds, which leads to intentions to start their own firms (Lee et al., 2011).

However, the finding that mentoring has differential impact on entrepreneurial intentions among different groups could be associated to economic and cultural environments. As hypothesized (*H3c*), results further confirm that there are variations among countries in the association of mentoring with entrepreneurial intentions. Specifically, mentoring is more strongly associated with entrepreneurial intentions in Germany than Kenya and Uganda. This suggests that the level of economic development plays an important role in the effectiveness of mentoring. There are about two ways in which this happens. First, developed countries are likely

to have adequate resources to offer quality entrepreneurship mentoring and education services. Previous research has showed that the quality of design and methods play a critical role in effectiveness of entrepreneurship mentoring and education programs (e.g. Karimi et al., 2016; Radu Lefebvre and Redien-Collot, 2013). Secondly, it is likely that individuals accessing mentoring in developed countries have access to resources for start-ups, which enhances the development of entrepreneurial intentions. On the contrary, even with access to mentoring, access to start-up capital is a major constraint to entrepreneurship in less developed countries (Gindling and Newhouse, 2014; Orobio et al., 2011). Hence, it is common to listen to stories such as “I have the knowledge, I really want to engage in business, but start-up capital”. In addition, it is also possible that mentoring, the role models, and entrepreneurship education available in less developed countries are of less quality than in developed countries. However, the level of entrepreneurial intentions already existing in a given group affects the effectiveness of mentoring. For example, our results reveal that mentoring is less associated to entrepreneurial intentions in Uganda in comparison to the other two countries. Yet, entrepreneurial intentions are higher in Uganda. This suggests that entrepreneurial intentions are already high in Uganda, hence there is limited contribution mentoring can make. In such situations, mentoring would be more effective if geared towards implementation of intentions and start-up rather than enhancing attitudes towards entrepreneurship.

Another important contribution of this paper regards the role of autonomy in the association between mentoring and entrepreneurial intentions. Autonomy, defined in SDT as connoting self-regulation and self-organization (Deci and Ryan, 2000) is posited to be essential for motivation to engage and persist in entrepreneurial activities (Croson and Minniti, 2012; van Gelderen, 2010; O’Shea et al., 2017). In line with these studies, findings of the present study reveal that autonomy is not only positively correlated to entrepreneurial intentions (*H2*), but also moderates the effects of mentoring on entrepreneurial intentions (*H3a*). Moreover, its moderating role in the mentoring – entrepreneurial intentions relationship was found to be similar across countries and does not vary with employment status (*H4a* and *H4b*). This implies that the need for autonomy as a motivator for entrepreneurial intentions is not grossly affected by differences in culture, development level and employment status, but rather virtually the same across the board. The ability to take personal career decisions and to act upon those decisions enables individuals to transform knowledge and skills gained from mentoring activities into firm

intentions to start one's own firm. Another possible impact of autonomy on entrepreneurial intentions is that individuals who already have high autonomy may seek to maintain or improve that level. Whereas the need for autonomy is widely known to motivate entrepreneurial intentions, having high job autonomy has also been claimed to relate to intentions to start one's own business (Zhang and Schøtt, 2017). On the other hand, and in line with SDT assumptions about need satisfaction and motivation (Deci et al., 2001; Gagne, 2003), those with relatively low autonomy, yet with high preference for independence at work may opt for entrepreneurship to attain this goal (Croson and Minniti, 2012; van Gelderen and Jansen, 2006). Importantly, results of this study suggest that autonomy is an important precondition for effectiveness of mentoring aimed at enhancing entrepreneurial intentions.

This result has important practical and theoretical implications. A call for entrepreneurial mentoring to focus on empowering protégés to develop capability for autonomy action has already been made (van Gelderen, 2010). This call is validated by the findings of the present study. This proposes that to enhance effectiveness of entrepreneurial mentoring programmes, the design and implementation of mentoring activities should focus on empowering protégés to act autonomously. This is not only important for transforming knowledge and skills gained from mentoring into firm start-up intentions, but important for actual entry and success particularly for early stage entrepreneurs (Schneider, 2017). Having a high level of autonomy enables individuals to implement what they have learned through mentoring, hence giving strength to entrepreneurial intentions and their implementation. In addition, mentoring programs should not only empower prospecting entrepreneurs with ability to act autonomously, but also increase the craving for autonomy. This craving, in line with SDT, could be essential for translating knowledge and skills gained into firm and sustained entrepreneurial intentions.

The second implication regards the finding that entrepreneurial mentoring is not related to entrepreneurial intentions among employed individuals. The challenge could be the low impetus for transition from salaried to self-employment. For programs promoting entrepreneurship among employees and for mentors, the challenge concerns best ways to motivate employed individuals into entrepreneurship and what should be the focus of entrepreneurial mentoring with employed individuals. One possible area of focus of entrepreneurial mentoring among employees is intrapreneurship. Enhancing skills of employed individuals to adopt entrepreneurial roles within the organizational setting is not only important

for organizations, given its impact on organizational performance and growth (Carter and Tamayo, 2017; Rivera, 2017), but also contributes to one's employability, since employers are increasingly seeking for creative and innovative employees. Regarding the motivation for entrepreneurship, mentors could also highlight the need for increased financial autonomy, which could be achieved by augmenting one's salaried job with business activities, particularly in less developed countries where incomes from wage employment are relatively low. Multiple jobbing is increasingly becoming common (Kottwitz et al., 2017), and might offer alternative income opportunities. In developing countries with high unemployment, multiple jobbing takes on the form of owning a business in addition to a salaried job. Although this phenomenon is not yet studied in the context of less developed countries, it could be one way of enhancing entrepreneurship and therefore a possible area of focus for entrepreneurial mentoring among employed individuals. Further, regarding the matter of focus of entrepreneurial mentoring, the results suggest that mentors should carefully design the content of mentoring activities for individuals who already have strong entrepreneurial intentions. In such situations, mentors or intervention programs could be more effective by focusing on increasing capacity to plan entry and implementation of intentions. This may include efforts of supporting protégés to develop business plans and financing strategies; which would consequently result into actual start-ups.

Despite the support for most of the hypotheses, the results should be applied or generalized with caution. There are a number of possible limitations that should be considered. The first limitation relates to the operationalization of mentoring construct. The measure used in the present study focused on three aspects of the mentoring process including training/ education, role modelling, and counselling. However, entrepreneurial mentoring involves several other aspects, such as reflection and motivation (St-Jean, 2012; St-Jean and Audet, 2012). It is proposed that future research should focus on more dimensions of entrepreneurial mentoring. Moreover, the present study relied on data collected through a cross-sectional survey. This has a short coming. Since receiving mentorship or not could not be controlled for as is the case in experimental research, causal conclusions cannot be drawn regarding the influence of mentoring on entrepreneurial intentions. It is proposed that studies on entrepreneurial mentoring should consider experimental or at least longitudinal approaches. Mentors could also have information from various resources regarding the success of their mentees, however, this could be coupled with longitudinal approaches. Lastly, the study used self-report measures, which presents a risk

of social desirability bias (Miller, 2012). Thus, the possibility of inflated relations of mentoring and autonomy with entrepreneurial intentions cannot be ruled out.

### ***Conclusion***

On the overall, the present study contributes to entrepreneurship mentoring and entrepreneurial intentions literature by highlighting the role of self-determination (autonomy) in the process through which mentoring translates into start-up intentions. The study has highlighted that autonomy is an important precondition necessary for mentoring to lead to high entrepreneurial intentions. Yet the study results suggest that this is true in different groups (students, unemployed, and employed individuals) as well as in both developed and less developed countries. The results therefore support the idea that entrepreneurial mentoring should include efforts to increase capability of participants to act autonomously; but further suggests that mentors should also gear some efforts towards eliciting the drive among participants to value and seek greater autonomy. Prospecting entrepreneurs who have lower need for autonomy and limited capability to act autonomously may not develop strong or sustained intentions, even with access to mentoring. The study further provides implications regarding focus of entrepreneurial mentoring especially for employed individuals, and in situations where mentoring is offered to individuals who already have strong intentions to start their own firms. Further research is also needed in exploring mechanisms of enhancing entrepreneurship mentoring among employed individuals. There is need for research to explore the quality of mentoring and mechanisms for increasing mentoring effectiveness in leading to implementation of intentions in less developed countries, considering that individuals already have strong entrepreneurial attitudes, most likely because self-employment is the most available employment opportunity in the face of heightened youth unemployment. Such efforts would contribute significantly to development of entrepreneurship in less developed countries.

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**Table 1.** Sample characteristics

		Employment status			
		Students	Unemployed	Employed	Total
Uganda	Male	137	82	130	349
	Female	152	91	115	358
Kenya	Male	99	28	77	204
	Female	114	19	75	208
Germany	Male	167		31	198
	Female	117		62	179
	Other	5			5
Totals by sex and employment status	Male	403	110	238	751
	Female	383	110	252	745
	Other	5			5
Over all totals		791	220	490	1,501

**Table 2.** Descriptive statistics and variable correlations

	M	SD	Min., Max.	$\alpha$	1	2	3
Entrepreneurial mentoring	2.89	1.04	1, 5	.96	1		
Autonomy	3.36	.64	1, 4	.74	.19***	1	
Entrepreneurial intentions	4.43	1.82	1, 7	.97	.34***	.20***	1

Note:

\*\*\*  $p < .001$

Min. – minimum score, Max. – Maximum score

**Table 3.** MANOVA results - Differences between groups regarding the study variables

Variable	Cross-cultural differences				Employment status			
	<i>Status</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>Country</i>	<i>M</i>	<i>SD</i>	<i>F</i>
Entrepreneurial mentoring	Uganda	3.19	.85	317.03***	Students	2.90	1.11	2.26
	Kenya	3.28	.86		Unemployed	3.01	.91	
	Germany	1.92	.92		Employed	2.83	.98	
Autonomy	Uganda	3.35	.66	.85	Students	3.47	.60	38.55***
	Kenya	3.39	.64		Unemployed	3.40	.59	
	Germany	3.34	.61		Employed	3.16	.69	
Entrepreneurial intentions	Uganda	4.94	1.67	196.65***	Students	4.87	1.95	318.99***
	Kenya	4.87	1.68		Unemployed	5.83	1.11	
	Germany	3.00	1.47		Employed	3.07	.68	

Note:  
\*\*\* p < .001

**Table 4.** Two-way interaction effects of mentoring with autonomy/ employment status/ country on entrepreneurial intentions

	Model 1 (Moderator: Autonomy)			Model 2 (Moderator: Employment status)			Model 3 (Moderator: Country)				
	B (t)	SE	95% CI	B (t)	SE	95% CI	B (t)	SE	95% CI		
Sex	.04 (.64)	.07	[-.09, .17]	-.06 (-.89)	.06	[-.18, .07]	.08 (1.24)	.07	[-.05, .21]		
Country	-.81 (-16.47) ***	.05	[-.90, -.71]	-.75 (-15.62) ***	.05	[-.85, -.66]	-.68 (-14.39) ***	.05	[-.78, -.59]		
Employment status	-.91 (-24.84) ***	.04	[-.99, -.84]	-.97 (-30.16) ***	.03	[-1.03, -.91]	-.99 (-26.88) ***	.04	[-1.06, -.91]		
Autonomy	.33 (5.88) ***	.06	[.22, .45]								
Mentoring	.47 (11.40) ***	.04	[.39, .55]	.48 (12.97) ***	.04	[.41, .56]	.45 (11.74) ***	.04	[.37, .52]		
Mentoring × Autonomy	.17 (2.93) **	.06	[.06, .28]								
Mentoring × Employment				-.50 (-17.48) ***	.03	[-.55, -.44]					
Mentoring × Country							.38 (8.76) ***	.04	[.30, .47]		
Model summary	R <sup>2</sup> = .49, F(6, 1494) = 320.19***			R <sup>2</sup> = .54, F(5, 1495) = 471.28***			R <sup>2</sup> = .51, F(5, 1495) = 283.23***				
ΔR <sup>2</sup> due to interaction	ΔR <sup>2</sup> = .003, F(1, 1494) = 8.59**			ΔR <sup>2</sup> = .06, F(1, 1495) = 305.56***			ΔR <sup>2</sup> = .03, F(1, 1495), = 76.79***				
<i>Conditional effects at values of the moderators</i>											
Low autonomy	.36 (6.27) ***	.06	[.25, .47]	Students	.88 (18.81) ***	.05	[.79, .97]	Uganda	.15 (2.61) **	.06	[.04, .26]
Average autonomy	.47 (11.40) ***	.04	[.39, .55]	Unemployed	.48 (12.97) ***	.04	[.41, .56]	Kenya	.45 (11.74) ***	.04	[.37, .52]
High autonomy	.57 (10.99) ***	.05	[.47, .68]	Employed	.04 (.86)	.04	[-.05, .12]	Germany	.77 (16.46) ***	.05	[.67, .86]

Note:

\*\* p < .001, \*\*\* p < .001

Employment status: Students = 0, Unemployed = 1, Employed = 2

Country: Uganda = 0, Kenya = 1, Germany = 3

Sex: Female = 0, Male = 1

**Table 5.** Three way interactions of mentoring, employment status and country on entrepreneurial intentions

	Model 4 (Moderators: Autonomy and employment status)			Model 5 (Moderators: Autonomy and country)			
	B (t)	SE	95% CI	B (t)	SE	95% CI	
Sex	-.07 (-1.03)	.06	[-.19, .06]	.07 (1.08)	.07	[-.06, .20]	
Country	-.77 (15.96) ***	.05	[-.87, -.68]	-.69 (-14.34) ***	.05	[-.78, -.59]	
Employment status (Employ.)	-.92 (-27.51) ***	.03	[-.99, -.86]	-.93 (-24.66) ***	.04	[-1.00, -.86]	
Autonomy	.33 (5.75) ***	.06	[.22, .44]	.39 (6.67) ***	.06	[.28, .51]	
Mentoring	.44 (11.48) ***	.04	[.36, .51]	.38 (9.45) ***	.04	[.30, .46]	
Mentoring × autonomy	.07 (1.58)	.05	[-.02, .17]	.17 (2.98) **	.06	[.06, .29]	
Mentoring × Employ.	-.50 (-17.09) ***	.03	[-.56, -.44]				
Autonomy × Employ.	.05 (.93)	.05	[-.06, .16]				
Mentoring × autonomy × Employ.	.01 (.40)	.05	[-.07, .11]				
Mentoring × country				.43 (9.44) ***	.05	[.34, .51]	
Autonomy × country				-.05 (-.63)	.07	[-.19, .10]	
Mentoring × autonomy × country				-.01 (-.13)	.07	[-.15, .13]	
Model summary	R <sup>2</sup> = .55, F(9, 1491) = .287.11***			R <sup>2</sup> = .53, F(9, 1491) = .186.12***			
ΔR <sup>2</sup> due to 3-way interaction	ΔR <sup>2</sup> = .00, F(1, 1491) = .16			ΔR <sup>2</sup> = .00, F(1, 1491) = .02			
<i>Conditional effects of mentoring × autonomy – by employment status</i>				<i>Conditional effects of mentoring × autonomy – by country</i>			
Students	.06 (.90)	.07	[-.07, .19]	Uganda	.18 (2.13) *	.09	[.01, .35]
Unemployed	.07 (1.58)	.05	[-.02, .17]	Kenya	.17 (3.00) **	.06	[.06, .29]
Employed	.09 (1.68)	.05	[-.02, .20]	Germany	.17 (2.11) *	.08	[.01, .31]

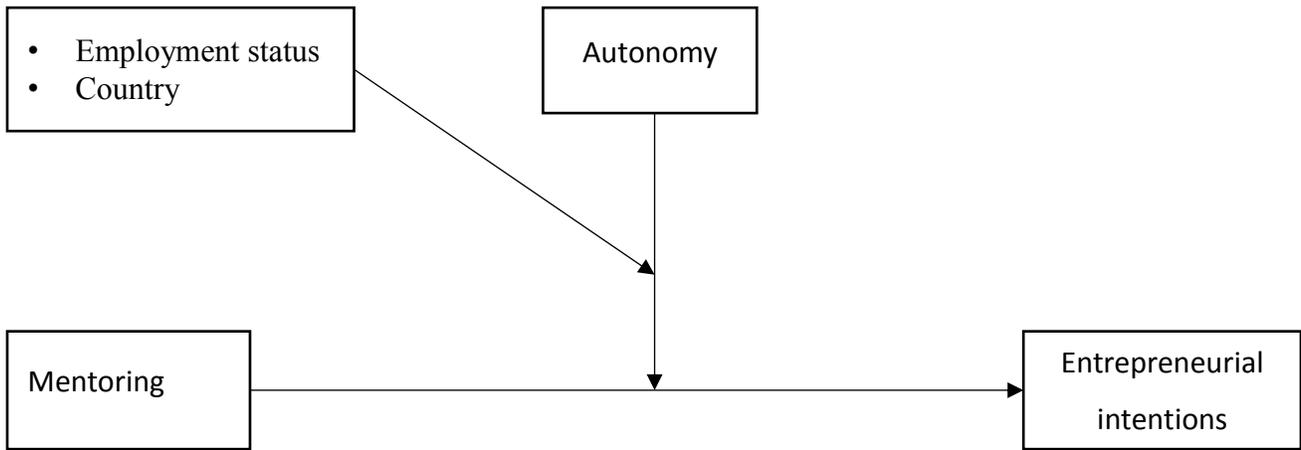
Note:

\* p &lt; .001, \*\* p &lt; .001, \*\*\* p &lt; .001

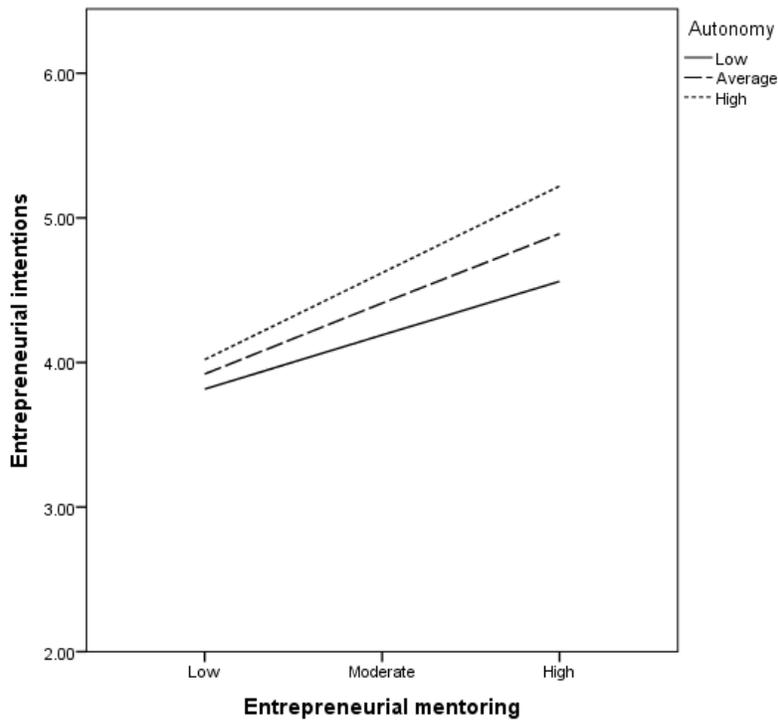
Employment status: Students = 0, Unemployed = 1, Employed = 2

Country: Uganda = 0, Kenya = 1, Germany = 3

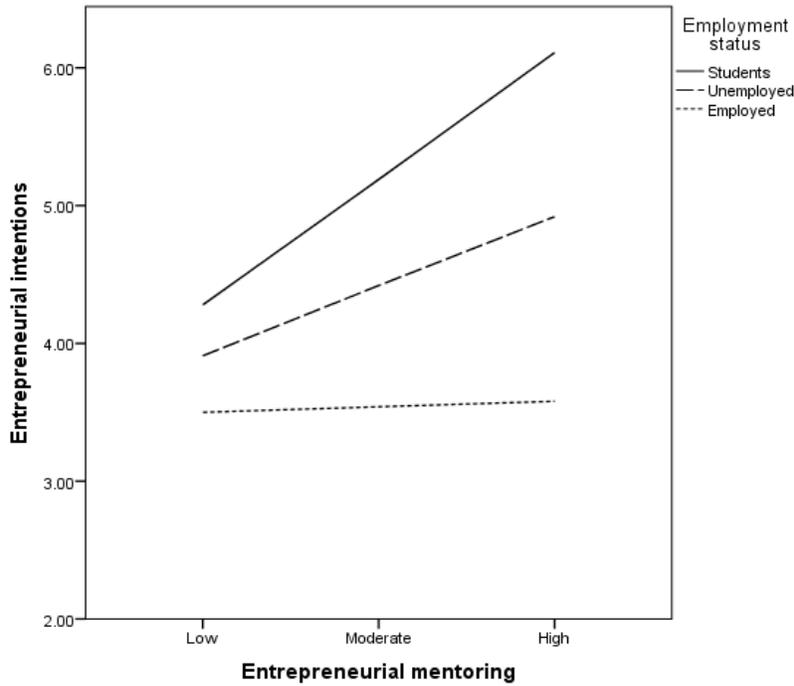
Sex: Female = 0, Male = 1



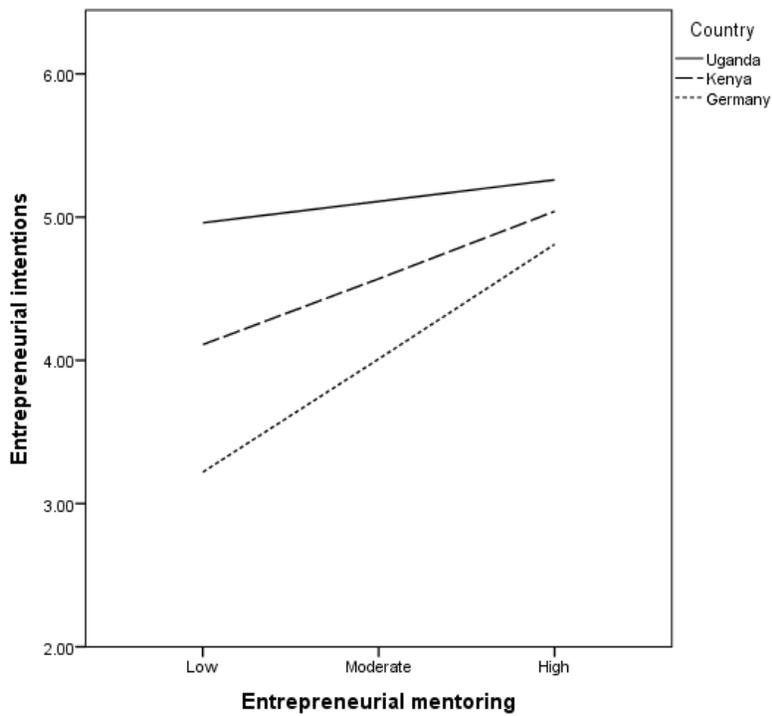
**Figure 1.** Conceptual model for the study



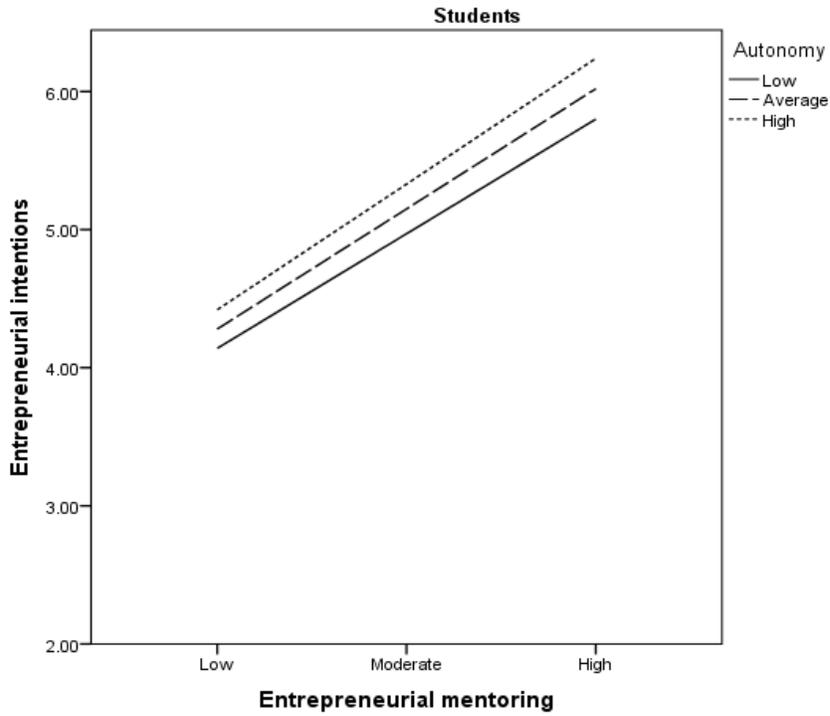
**Figure 2a.** Interaction effects of mentoring and autonomy on entrepreneurial intentions



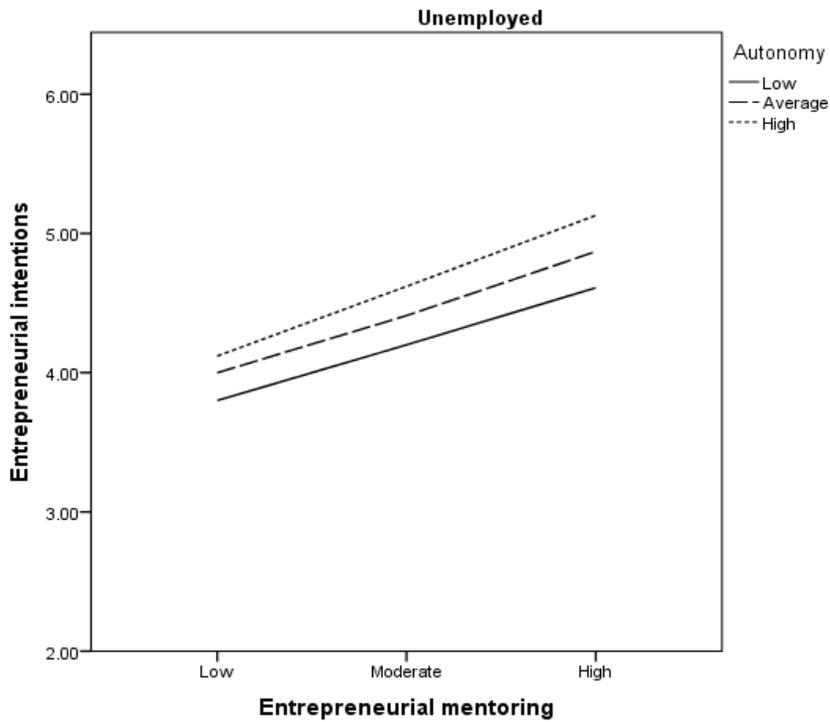
**Figure 2b.** Differential effects of mentoring on entrepreneurial intentions by employment status



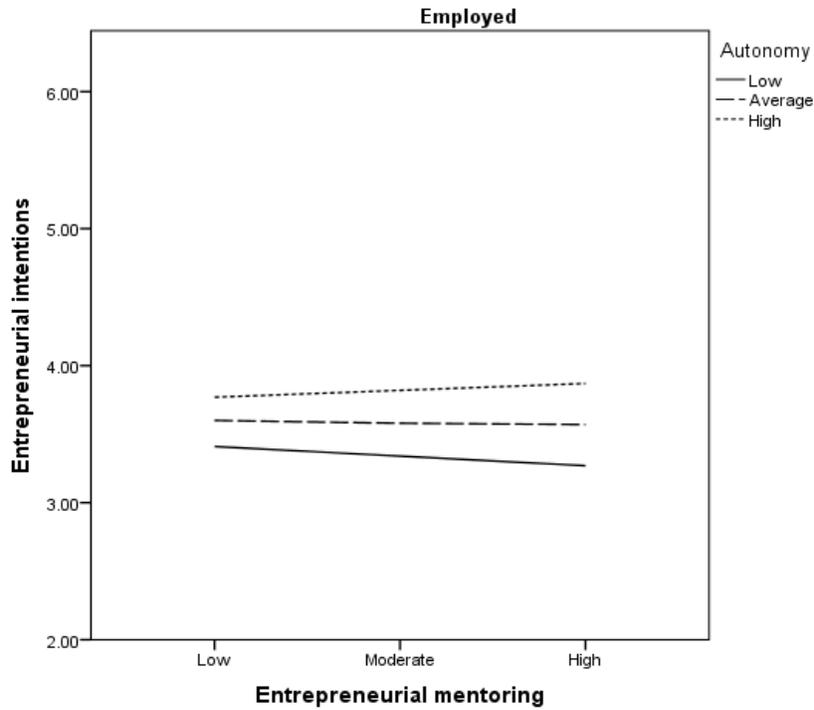
**Figure 2c.** Differential impact of mentoring on intentions by country



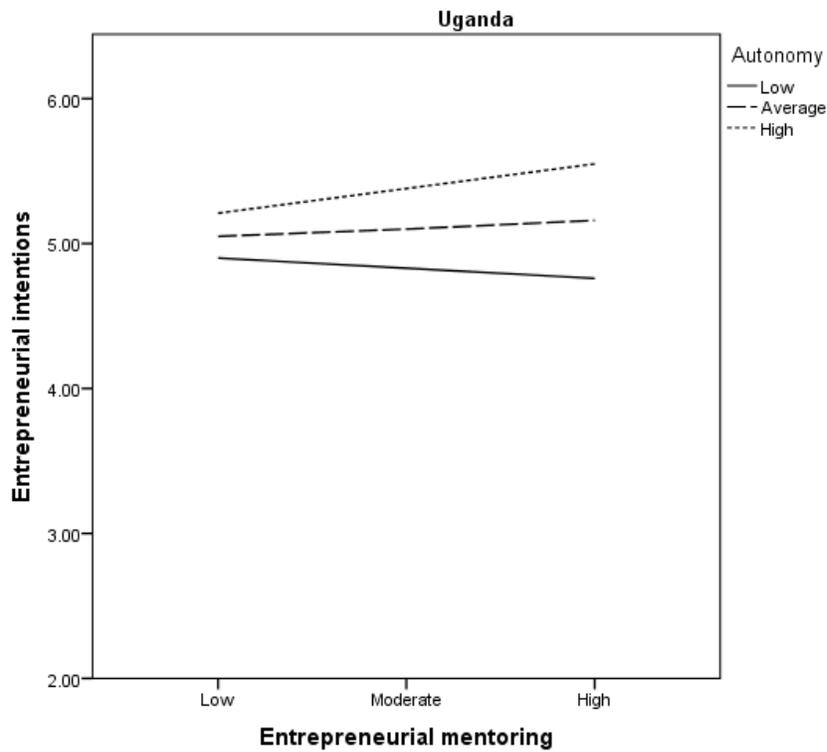
**Figure 3a.** Interactive effects of mentoring and autonomy on entrepreneurial intentions of students



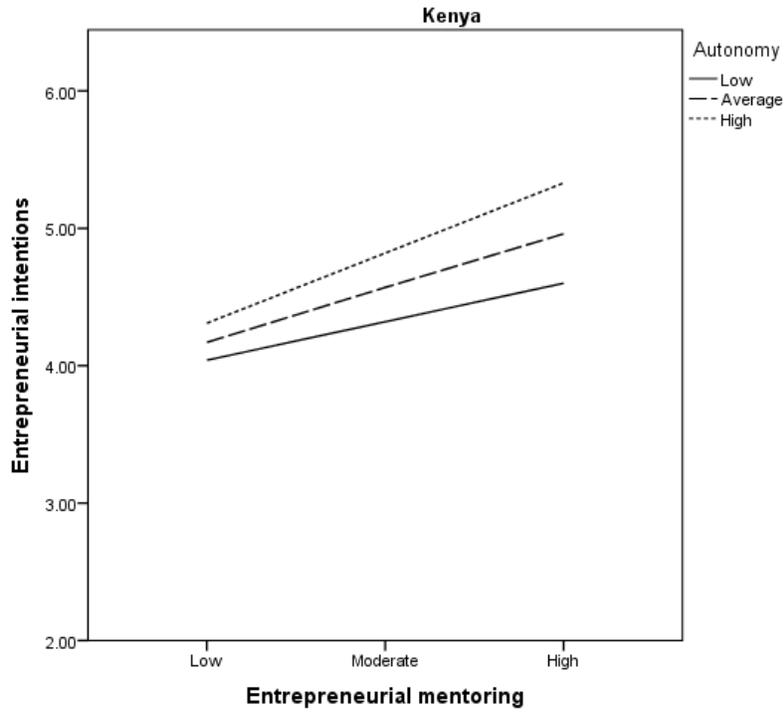
**Figure 3b.** Interactive effects of mentoring and autonomy on entrepreneurial intentions of unemployed individuals



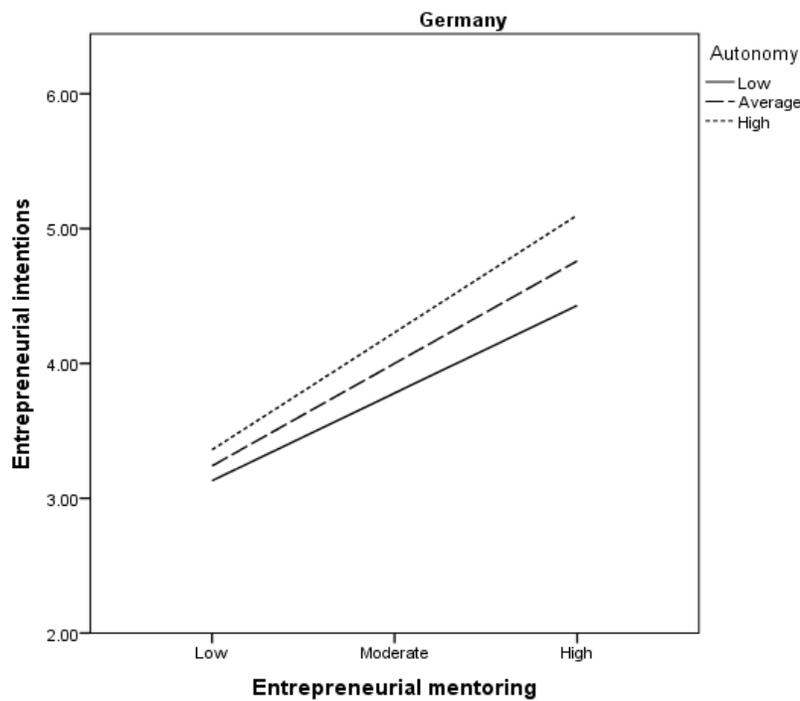
**Figure 3c.** Interactive effects of mentoring and autonomy on entrepreneurial intentions of employed individuals



**Figure 4a.** Interactive effects of mentoring and autonomy on intentions for Uganda



**Figure 4b.** Interactive effects of mentoring and autonomy on entrepreneurial intentions for Kenya



**Figure 4c.** Interactive effects of mentoring and autonomy on entrepreneurial intentions for Germany

**Manuscript #6**

**Predicting Self-Employment Intentions and Entry: An Investigation of the Impact of Mentoring, Entrepreneurial Attitudes, Psychological Capital and Culture**

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### **Abstract**

The contemporary dynamic labor market requires young people graduating from college to be prepared to follow a non-traditional employment path. Self-employment is an increasingly important employment alternative. Based on multiple theories i.e. theory of planned behavior, entrepreneurial socialization perspective, and psychological capital literature, this paper explores the interactions between mentoring, culture, attitudes and psychological capital in explaining intentions and actual entry into self-employment. In a two-year longitudinal study of final year university students (288 German and 498 East African), it was found that mentoring impacted self-employment intentions via entrepreneurial attitudes. Cross-cultural analysis indicated that the impact of mentoring on attitudes and intentions was higher for German participants. Psychological capital also moderated the impact of mentoring and attitudes on intentions. Study 2, a follow up of participants 6 – 18 months after graduation (53 German and 50 East African) demonstrate that intentions, continuous mentoring, and availability of financial capital predicted likelihoods of being self-employed. Likelihoods of entry were higher among East Africans, connoting the impact of culture and high youth unemployment rates in this region. However, psychological capital did not have substantial effects on likelihood of being self-employed. Further implications of these findings are discussed.

### **Key Words:**

Culture; Entrepreneurial attitudes and intentions; Mentoring; Psychological capital; Self-employment entry

## Introduction

The working context has changed enormously in recent decades, and continues to change facilitated by a number of factors including technological advancements, economic crises, and changes in population structures among others. These changes have resulted into increased unemployment and job insecurity in many parts of the world. Job insecurity is a major concern in many developed countries arising from economic crises and dynamics in the labor market causing precarious employment situation for many people (László et al. 2010; Carneiro, Portugal, and Varejão 2014; Benach et al. 2014; Crouch 2014). On the other hand, unemployment is a major challenge for developing countries resulting from high youth population and low economic development (Falco and Haywood 2016). Consequently, there are growing alternatives to traditional salaried employment. There is particularly an increase in number of people opting for self-employment and freelancing; that is self-employment as their main source of income, or combining salaried employment with a personal business. Despite the indication that the self-employed often earn less than their counterparts in salaried positions, it offers some benefits particularly in relation to subjective wellbeing (Sevä, Larsson, and Strandh 2016). In the context of developing countries, where remuneration for wage-employment is equally poor, self-employment has become the most dominant form of employment, albeit mostly in small businesses (Falco and Haywood 2016; Gindling and Newhouse 2014).

Given these contexts whereby it is increasingly difficult to obtain a job, or a job that is aligned to one's inherent interest, or that is secure (Gindling and Newhouse 2014), self-employment offers the fastest path to obtaining employment and towards successful career life. We therefore presume that self-employment interest and exhibiting behavior towards business start-up is important for shortened school-to-work transition or avoiding unemployment. The present study focuses on self-employment or entrepreneurial intentions of university students in the last semester of their courses; and how these intentions translate into self-employment entry after graduation. Based on theory of planned behavior (Ajzen 1985; Ajzen 1991), we highlight the role of attitudes in development of intentions, and movement from intentions to start-up. Research based on this theory has predominantly explained intentions from the three factors; attitudes towards entrepreneurship, subjective norm and perceived control. Indeed, these factors have consistently accounted for huge variance in entrepreneurial intentions in various studies. Among these factors, we focus on

the attitudinal aspect, given that it regards beliefs about the expected outcomes of engaging in behavior (Ajzen, 1985).

Previous research on antecedents of entrepreneurial attitudes and intentions, in line with the planned behavior as well as other theories of entrepreneurial behavior, has highlighted the role of personal factors such as personality, cognition and efficacy (e.g. Armstrong & Hird, 2009; Katongole, Ahebwa, & Kawere, 2014; Mathews, 2008; Mathieu & St-Jean, 2013; Mitchell, Smith, & Seawright, 2000), as well as socialization factors such as culture, previous experience or family entrepreneurship history, and entrepreneurial training or mentoring (Schlaegel, He, and Engle 2013; Dodd 2002; Pruett 2012). This study contributes to this debate by focusing on (1) the interactive effects of socialization factors (specifically mentoring and culture) on both entrepreneurial attitudes and intentions; (2) we apply the concept of psychological capital as a conditioning resource for mentoring and positive entrepreneurial attitudes to translate into entrepreneurial intentions; and (3) we examine the role of mentoring and psychological capital in the movement from intentions to actual entry into self-employment.

Entrepreneurial socialization theories, such as the model of entrepreneurial socialization and organization formation (Starr and Fondas 1992), the model of contingency-based business planning (Honig 2004), and the integrated model for entrepreneurial education (Pretorius, Nieman, and van Vuuren 2005) provide insights into the role of mentoring and culture on development of entrepreneurial attitudes and intentions. The theory of planned behavior also acknowledges that broad life values and education are among background factors have effect on antecedents of intention and action (Ajzen, 2011). Despite a plethora of studies focusing on entrepreneurial training (e.g. Bae, Qian, Miao, & Fiet, 2014; Piperopoulos & Dimov, 2015; Rauch & Hulsink, 2015) and entrepreneurial culture (e.g. Fayolle & Gailly, 2015; Fritsch & Wyrwich, 2012; Hayton & Cacciotti, 2013), studies focusing on both or how they interact in influencing attitudes and intentions are rare (e.g. Matlay, Solesvik, & Westhead, 2014). Moreover, entrepreneurial training research mainly focuses on entrepreneurial education. This implies limited focus beyond knowledge or skills acquisition. However, learning occurs in different forms including formally organized educational courses and informal platforms such as imitation or inspiration from role models, and interacting with those already in entrepreneurial roles. All these forms of entrepreneurial learning need to be considered in understanding the impact of learning on attitudes, intention and actual action.

Regarding the impact of culture, research has heavily drawn on (Hofstede 1984; Hofstede, Hofstede, and Minkov 2010b) framework of national cultures. Efforts have specifically identified entrepreneurial from non-entrepreneurial cultures, albeit with conflicting findings. One cluster of research shows that entrepreneurial culture is individualistic, low on uncertainty avoidance and power distance, and high on masculinity (Hayton and Cacciotti 2013; Shane and Eckhardt 2003; Mueller and Thomas 2001). While another cluster highlights the role of dimensions such as collectivism as also important in the entrepreneurial process (e.g. Rauch et al., 2013; Rowley, Behrens, & Krackhardt, 2000). The present study discusses the role of the individualistic-collectivistic dimension, the most discussed dimension in the entrepreneurial literature. However, our aim is to examine the differential impact of mentoring on entrepreneurial intentions and self-employment entry between individualistic and collectivistic countries. There is also research confirming variations of entrepreneurial attitudes among cultures and regions (Bosma and Schutjens 2011). We demonstrate that these variations may partly be contributed to differences in entrepreneurial mentoring or training.

Entrepreneurial attitudes are also widely researched as a precedent or mediator of entrepreneurial intentions. However, not every individual with positive entrepreneurial attitudes has the intention to become an entrepreneur. There must be conditions that facilitate transforming attitudes into intentions. We particularly examine the role of psychological resources (psychological capital) in this process. The self-efficacy aspect of psychological capital is also emphasized as an important feature of perceived behavioral control component (Ajzen 2002). Similarly, studies have examined the impact of self-efficacy on entrepreneurial intentions and behavior, but mostly as a predictor or mediator (Zhao, Seibert, and Hills 2005; Wilson, Kickul, and Marlino 2007; Piperopoulos and Dimov 2015; Boyd and Vozikis 1994). Moreover, very few studies have focused on the role of the three other dimensions of psychological capital such as hope (Baluku, Kikooma, and Kibanja 2016), resiliency (Bullough, Renko, and Myatt 2014) and optimism (Dawson & Henley, 2013; Dawson, de Meza, Henley, & Arabsheibani, 2014; Piperopoulos & Dimov, 2015; Sesen, 2013) in the development of intentions and entrepreneurial behavior. We contribute to the debate, that the whole set of psychological resources are essential for the development of entrepreneurial intentions and behavior, by examining these psychological resources in a collective construct “psychological capital” which is regarded to be essential in transforming entrepreneurial attitudes into self-employment intentions and entry.

Entrepreneurial intentions, in line with the theory of planned behavior, are considered the immediate cause of entrepreneurial action; they at least explain about 27 to 39% of variance in entrepreneurial behavior (Armitage and Conner 2001; Schlaegel and Koenig 2014). Ajzen (1985) suggested that unless individuals are capable of implementing their intentions, interventions to changing antecedents of intentions will not necessarily translate into behavior; and hence interventions such as inducing individuals to develop specific action plans so as to achieve desired behavior have been proposed (Fishbein and Ajzen 2005). Concerning movement from entrepreneurial intentions, we suggest that certain preconditions and resources must be available. In line with proposed extensions to the planned behavior model (e.g. Adam & Fayolle, 2015; Fayolle, Liñán, & Moriano, 2014), we focus on socialization aspects as well as psychological resources that could explain implementation of intentions. We particularly demonstrate that continuous entrepreneurial mentoring and psychological capital could be essential in the process of transiting from intentions to startup.

The paper is structured as follows. In the proceeding section, we present the theoretical framework on self-employment intentions and behavior. This part also includes literature explaining the role of mentoring, culture, attitudes and psychological capital in the development of self-employment intentions and entry and derives our hypotheses. In the third section, we describe the methodology we employed in conducting the study. In the fourth section, we present the findings on the association of mentoring, cultural differences, and psychological capital on attitudes as well as on self-employment intentions and entry. The last section focuses on the discussion of our results in line with our assumptions and theory. We highlight the implications of our findings for entrepreneurial mentoring, and for interventions aimed at increasing startups.

### **Theoretical Framework**

Research on entrepreneurial intentions and processes in recent decades has largely relied on the theory of planned behavior (Ajzen, 1985, 1991); which is by far one of the most applied models for predicting specifically social behavior (Ajzen, 2011). This research has demonstrated that entry into self-employment follows intentions and a planned process (Fayolle et al., 2014; Krueger, 2003; Krueger, Reilly, & Carsrud, 2000). According to this perspective, behavioral intention signifies the readiness to engage in a particular action; which is also influenced by attitudes, subjective norm and perceived behavior control (Ajzen, 1991, 2011). Entrepreneurship research over the last three decades has largely confirmed this

basic assumption of the model (e.g. Carr & Sequeira, 2007; Kautonen, van Gelderen, & Tornikoski, 2013; Krueger, Reilly, Carsrud, et al., 2000; Küttim, Kallaste, Venesaar, & Kiis, 2014; Obschonka, Silbereisen, & Schmitt-Rodermund, 2010; Tkachev & Kolvereid, 1999).

Whereas attitudes, subjective norm and perceived control are determinants of behavioral intention, it is assumed that the intention itself transmits the effects of these antecedents on actual behavior (Kautonen, van Gelderen, and Fink 2015). Moreover, the effects of intention on behavior is expected to be high when perceived control is also high (Ajzen, 1991), signifying the importance of psychological resources not only in formation of intentions but also in implementing the intentions. There are arguments that, given the complexity of startup behavior and numerous actions that individuals have to engage in to negotiate entrepreneurial entry phase, the influence of intentions may not be direct (Kautonen, van Gelderen, and Fink 2015). Therefore, the assumption that resources such as perceived control are essential to move from intention to behavior, could be more applicable to understanding the process of implementing intentions into startup behaviors. Self-efficacy is one resource emphasized in the perceived behavioral control component (Ajzen, 2002) that plays an important role in entrepreneurial actions among nascent or prospective entrepreneurs (Boyd and Vozikis 1994; Sequeira, Mueller, and Mcgee 2007; Hmieleski and Corbett 2008). Self-efficacy, however, is one of the psychological resources, that constitute the construct “psychological capital” (Page and Donohue 2004; Luthans and Avolio 2014; Harms and Luthans 2012). We propose that beyond self-efficacy, psychological capital in general is an important resource for prospecting entrepreneurs to translate intentions into action.

It is assumed that several personal and background factors such as personality, broad life beliefs, and demographic factors including sex, age and education impact on influences that are proximal to intentions and behaviors (Ajzen, 2011). In line with this assumption, we propose that socialization factors, particularly mentoring and national cultures influence entrepreneurial attitudes, intentions and behavior, both directly and indirectly.

Entrepreneurial socialization perspective posits that choice to become self-employed is influenced by predisposing characteristics and experiences, yet after development of a firm decision to become an entrepreneur, socializing agents such as peers and seniors provide different resources, such as information, that assist in adjusting to the entrepreneurial role (Starr and Fondas 1992). In support of this view, Krueger (2007) demonstrates that movement from a novice to an expert entrepreneur requires change in knowledge content, as well as change in knowledge structure. Although Krueger attributes this change to critical

development experiences, entrepreneurial education research highlights the contribution of training, role models, and mentors (Honig, 2004; Pretorius et al., 2005; Van Auken, Fry, & Stephens, 2006). We therefore propose that mentoring is essential for development of entrepreneurial awareness; and specifically positive entrepreneurial attitudes, as well as intentions and behavior. We posit that movement from self-employment intentions to entry is partly influenced by continuous mentoring, high psychological capital, and availability of financial resources. However, there may also be variations between countries based on differences in level of economic development and/or culture.

*Insert Figure 1 around here*

### **Entrepreneurial Attitudes and Self-Employment**

Entrepreneurial attitudes, from planned behavior theory, is one the drivers of entrepreneurial intention and behavior (Autio, Keeley, & Klofsten, 2001; Fitzsimmons, 2005; Kautonen et al., 2015; Robinson, Stimpson, Huefner, & Hunt, 1991). From Robinson et al (1991) focus on attitudes as a motivating force, and the central stage of the theory of planned behavior in predicting behavioral intentions, attitudes have attracted enormous research efforts. The consensus from these studies confirms the impact of attitudes in choice of entrepreneurship as a career (Callanan and Zimmerman 2016; L Kolvereid 1996; Douglas and Fitzsimmons 2013; Alain Fayolle and Gailly 2015; Douglas and Shepherd 2002; Harris and Gibson 2008). The kind of attitudes an individual hold towards entrepreneurship forms the basis for evaluating the expected outcomes which in turn determine the willingness to become self-employed.

There are two streams of research on entrepreneurial attitudes. One stream studies attitudes as a general concept (e.g. Fellnhofer and Puumalainen 2017; Alain Fayolle and Gailly 2015). While the other streams focuses on specific attitudes including risk attitude, autonomy, competition, and attitudes towards entry requirements (e.g. Douglas & Shepherd, 2002; McNally, Martin, Honig, Bergmann, & Piperopoulos, 2016; Valtonen, 2007). In the present study, we focus on the general attitude towards entrepreneurship. Much of the literature nonetheless, highlights the role of risk and autonomy in describing liking of or dislike for entrepreneurship. The general finding that has been replicated in numerous studies is that intentions and entry in self-employment are associated with a higher risk attitude (Brachert, Hyll, and Titze 2014; Hu 2014; Brown et al. 2011; Schwarz et al. 2009; Gupta and York 2008; Douglas and Shepherd 2002; Skriabikova, Dohmen, and Kriechel 2014). This is

because individuals with lower levels of risk attitude tend to prefer the stability of income (Di Mauro and Musumeci 2011) in salaried employment, yet income in self-employment is highly variable.

An increasingly important attitude in relation to choice of careers is autonomy or independence in the workplace. The self-determination theory posits that autonomy is one of the psychological needs that drives behavior in occupational situations (Deci et al., 2001; Deci & Ryan, 2000; Ryan & Deci, 2000). Therefore, individuals with high need for autonomy tend to choose careers or work situations with higher likelihood of satisfying this need. Yet changes in social roles and trends as well as emphasis on self-reliance has increased the importance of freedom in work situations (Van Gelderen, 2010). Consequently, autonomy has become an important consideration among expected outcomes of a career or job (Croson and Minniti 2012; Douglas and Shepherd 2002). Satisfaction of this need is associated with higher satisfaction among the self-employed (Lange 2012). According to planned behavior theory, attitudes result from behavioral beliefs, which particularly regard the likely outcomes of the behavior (Ajzen, 1985, 1991). In line with this assumption, we hypothesize that individuals with positive attitudes towards entrepreneurship in general will have higher self-employment intentions.

*H1.* Entrepreneurial attitudes are positively associated with self-employment intentions.

### **Intentions as a Predictor of Self-employment Entry**

In the previous sub-sections, we have emphasized that mentoring, attitudes, psychological capital and culture are associated with intentions and entry into self-employment. An important proposition of the theory of planned behavior is that intentions are the best predictor of the likelihood that an individual will engage in behavior (Ajzen 1985; Ajzen 2011). Towards this, studies have found that intentions predict big variances in behavior (e.g. Armitage and Conner 2001). In specific regards to entrepreneurial behavior, support for self-employment as an intentional behavior has been found by previous studies (e.g. Kautonen, van Gelderen, and Tornikoski 2013; Kautonen, van Gelderen, and Fink 2015; Kolvereid and Isaksen 2006). Consequently, it can be said that self-employment intentions have an influence on the likelihood of one becoming self-employed in the future. However, research shows that this relationship is stronger in the long-term than in the short-term (Stenholm 2011; Liñán and Fayolle 2015). We therefore hypothesize that in our longitudinal study (Study 2); -

*H2*. Intentions will predict the likelihood of actual entry into self-employment.

### **Mentoring and Self-Employment**

Entrepreneurial mentoring is an intervention that typically aims at increasing startups and growth of nascent entrepreneurs. This emphasis stems from the assumption that learning entrepreneurial and business skills increases entry, survival and success in business (St-Jean and Audet 2012; Matlay 2008). Mentoring in entrepreneurship implies that an institution or an experienced entrepreneur supports the development of a nascent or prospective entrepreneur (St-Jean and Audet 2012). Such support enhances career growth of the protégés (Gong, Chen & Lee, 2011) through acquisition of the required vital skills (Beckett 2010; Xiao and North 2016). Certainly, prospective entrants and newly self-employed individuals require constant skills development and support to keep in pace with the fast changing competitive business environment; which is indeed very important for a startup performance (Xiao and North 2016).

Mentoring is often provided in varying forms depending on the needs of the mentee and competencies of the mentor. Mentoring may include supporting protégés through coaching, sponsorships, role modeling, experience sharing or hands-on or exposure training, linkage to useful business and professional networks, providing information about opportunities, counseling, friendship, encouragement and persuasion as well as giving advice and recommendations (Radu Lefebvre and Redien-Collot 2013; Gong, Chen, and Lee 2011; Rickard and Rickard 2009; Sullivan 2000; Beckett 2010; Kram and Isabella 1985). The entrepreneurial mentoring process is also regarded a pathway to strengthening opportunity recognition and startup success of nascent entrepreneurs through enhanced technical, professional and visionary skills. Constant interactions with seniors or role models, and those who are knowledgeable in entrepreneurial processes are likely to improve one's sense of professional identity (Lefebvre & Redien-Collot, 2013; St-Jean & Audet, 2012; Terjesen & Sullivan, 2011), thus positively impacting on entrepreneurial attitudes (Audet and Couteret 2012). Enhanced professional identity as an entrepreneur not only has potential for strengthening attitudes and intentions among prospecting entrepreneurs, but can also directly enhance motivation and effort towards startup.

Recent research and policy efforts have concentrated on the aspect of entrepreneurial education and its effectiveness, whereby specialized entrepreneurship education programs are taking center stage in promoting entrepreneurship. The thinking is that specialized

entrepreneurship trainings attract students to entrepreneurial activities, hence increasing the likelihoods of starting business ventures (Ahmed, Chandran, and Klobas 2017; Alain Fayolle, Gailly, and Lassas- Clerc 2006; Tkachev and Kolvereid 1999). Although such programs are effective in enabling students to develop entrepreneurial intentions and consequently business startups (Alain Fayolle, Gailly, and Lassas- Clerc 2006; Tkachev and Kolvereid 1999; Xiao and North 2016; Garcia, Leles, and Romano 2017; Alain Fayolle and Gailly 2015), entrepreneurial education is not necessarily superior to other forms of entrepreneurial training (Ahmed, Chandran, and Klobas 2017). Therefore, in our measurement of entrepreneurial mentoring, we do not limit ourselves on the formal education aspect, but also to coaching and role modeling that often occur in less formal arrangements. A recent research (Huq and Gilbert 2017) has also sought to advance entrepreneurial training to a combined model of education, mentoring and co-ownership; which purportedly results into satisfactory entrepreneurial learning outcomes. A combination of entrepreneurial training, coaching and exposure to entrepreneurial role models increases chances of choosing a career in entrepreneurship via strengthened attitudes and intention (Autio et al. 2001b; Alain Fayolle and Gailly 2015).

One stream in the mentoring literature particularly emphasizes coaching and role modeling as essential for enhancing skills and attitudes of protégés. Regarding coaching as a mentoring approach, it plays a double role of enabling the mentee to acquire skills but also the coach can catalyze the entrepreneurial behavior of the prospective entrepreneur (Audet and Couteret 2012). Concerning role modeling, it is seen as a powerful tool for enhancing positive attitudes towards entrepreneurship among young people (Lafuente and Vaillant 2013). Bandura (1969) posited that role modelling involves forming thoughts, affect and behavior that identify an individual with the model. This has the power to enable young people to develop a professional identity (Kram and Isabella 1985) as prospective entrepreneurs. In addition to learning and aiding and the development of self-concept, role models are a source of inspiration and behavior modification (Bandura, 1977; Gibson, 2004), which may be essential for decisions to become self-employed. In general, previous studies have revealed that individuals who participated in entrepreneurship education or mentoring programs had increased intentions and a higher likelihood of startups (e.g. Bosma, Hessels, Schutjens, Praag, & Verheul, 2012; Fayolle & Gailly, 2015; Solesvik, 2013; Xiao & North, 2016). Participation in entrepreneurial training or having role models impacts on entrepreneurial attitudes and self-efficacy (Günzel-Jensen, Moberg, & Mauer, 2017; Jabeen,

Faisal, & Katsioloudes, 2017; Karlsson & Moberg, 2013), which are further linked to intention and behavior (Baluku et al., 2016; Byabashaija & Katono, 2011; Fitzsimmons, 2005; Karlsson & Moberg, 2013; Sequeira, Mueller, & McGee, 2007). We therefore hypothesize that:

*H3a.* Mentoring is positively associated with entrepreneurial attitudes.

*H3b.* Mentoring is positively associated with self-employment intention.

*H3c.* The association between mentoring and self-employment intention is mediated by entrepreneurial attitudes.

*H3d.* Mentoring is positively associated with self-employment entry.

### **The Impact of Cultural Context**

Culture is one of the aspects that differentiates one group of individuals from others. The distinction of cultures can be based on a wide range of characteristics including nationality, ethnicity, age, occupation, gender and geographical location. Each cultural group differs from another in the manner in which members perceive, process and use contextual information (Hall, 1976) based on the groups practices, values, norms, symbols and rules. These differences result into variations in behavioral attitudes and practices. In the planned behavior model, cultural influences fit in the description of normative beliefs. That is, normative expectations of others and one's desire to conform to those expectations. Yet cultural values are extended to most human behavior, including business (Frederking 2004). Concerning entrepreneurship, cultural beliefs and behavioral expectations result into differences in entrepreneurial cognition, activities and behavior. For example, culture influences perception of barriers, support mechanisms, and personal competencies to engage in entrepreneurial activities (Shinnar, Giacomini, and Janssen 2012; Migliore 2011), thus affecting intention and entry or at least the type of entrepreneur one becomes; that is whether one becomes an opportunity or necessity entrepreneur (Tlaiss 2014; Davidsson 1995).

Cultural research has identified aspects that constitute entrepreneurial and non-entrepreneurial cultures. Based on (Franke, Hofstede, & Bond, 1991; Hofstede, Hofstede, & Minkov, 1991; Hofstede, 1984), entrepreneurial cultures are considered to be low on power distance, individualistic, high on masculinity, low on uncertainty avoidance, and high on long-term orientation (Tlaiss 2014; Vinogradov and Kolvereid 2007; Lee and Peterson 2000; Mueller and Thomas 2001; Minkov and Hofstede 2012). Hence less entrepreneurial cultures tend to be collectivistic, high on power distance, high uncertainty avoidant, short-term

orientated and high on feminism (Eroglu & Piçak, 2011; Hofstede & Minkov, 2010; Minkov & Hofstede, 2012). The differences in cultural orientations is also presented in literature as accounting for the geographical differences in entrepreneurial activity and economic development (Liñán and Fernandez-Serrano 2014; Franke, Hofstede, and Bond 1991; Huggins and Thompson 2014). In the present study, we focus on differences in impact of mentoring on entrepreneurial attitudes, self-employment intentions and entry between countries; German (which is high in individualism and uncertainty avoidance) and Uganda and Kenya from East African Community (EAC) which are relatively low on individualism and risk avoidance (Hofstede, Hofstede, and Minkov 2010). This is in line with (Andreas Rauch et al. 2013) to study culture as a moderator in entrepreneurship research.

Previous research associates entrepreneurship or self-employment with individualistic cultures (e.g. Lee & Peterson, 2000; Mueller & Thomas, 2001; Tlaiss, 2014). Independence orientation is correlated to autonomy and risk-taking (Omerzel and Omerzel 2016; Kreiser et al. 2010). Particularly in relation to self-determination theory (Deci et al., 2001; Ryan & Deci, 2000), the need for autonomy could be a motivating force for individualistic people to choose a career in self-employment. This offers them more likelihoods of career satisfaction than other employment alternatives (Kawaguchi 2002; Berglund, Johansson Sevä, and Strandh 2015). However, there's a cluster of research that has illuminated the role of collectivism. Particularly, cohesiveness is highlighted as essential to implementing innovations (Rowley, Behrens, and Krackhardt 2000) and particularly has impact on growth (Rauch et al., 2013). In this way, collectivism can boost self-employment entry through its association to social capability, creating networks and ability to pool resources from different networks. However, if establishment of the firm poses challenges to social norms, it could lower chances of entry into self-employment, given that normative deviance is less tolerated in collectivistic societies (Wennberg, Pathak, and Autio 2013), yet some level of deviance is necessary in entrepreneurship (Akhtar, Ahmetoglu, and Chamorro-Premuzic 2013). We therefore posit that entrepreneurial attitudes and self-employment intentions are higher in the individualistic country than in the collectivistic one.

Moreover, our interest focuses on the impact of the cultural context on the effectiveness of mentoring in improving entrepreneurial attitudes, self-employment intention and entry. Based on the above stated empirical evidence regarding the facilitative and constraining nature of individualism and collectivism respectively, we posit that mentoring has higher impact on attitudes and intention in an individualistic than in a collectivistic

society. However, given the role of collectivism in networking and pooling resources, transition from intentions to entry might be higher in collectivistic society.

*H4a.* Entrepreneurial attitudes are higher in the individualistic country than in the collectivistic countries

*H4b.* Self-employment intentions are higher in the individualistic country than in the collectivistic countries.

*H4c.* The impact of mentoring on entrepreneurial attitudes is higher in the individualistic country than in a collectivistic country.

*H4d.* The impact of mentoring on entrepreneurial intentions is higher in the individualistic than in the collectivistic country.

*H4e.* Implementation of self-employment intentions into actual entry is higher in the collectivistic than in individualistic country.

### **The Role of Psychological Capital**

Entry and success in self-employment require more than financial or material capital. Entrepreneurs require psychological resources to recognize and effectively exploit opportunities. In their model of entrepreneurial psychological capital, Pease and Cunningham (2016) reiterate that entrepreneurs need psychological resources to be successful. Positive psychological capital (Luthans, Luthans & Luthans, 2004) is the construct that denotes the mental inputs in a job or business. Psychological capital consists of four mental resources; self-efficacy (confidence), optimism, hope and resilience (Luthans, Yousef, and Avolio, 2007). Although the construct of psychological capital has been applied to the work context and is widely studied as a resource for performance and other work related attitudes and outcomes, its application to entrepreneurship processes is limited. Moreover, the few studies on entrepreneurial psychological capital focus on its impact on different facets of success (e.g. Baluku et al., 2016; Baron, Franklin, & Hmieleski, 2016; Hmieleski & Carr, 2008). However, studies on some aspects of psychological capital such as self-efficacy and optimism suggest the construct could be important in understanding entrepreneurial intentions and behavior. Although the entrepreneurial psychological capital model proposes the inclusion of positive traits such as creativity, proactivity and entrepreneurial orientation (Pease and Cunningham 2016) as well as trust (Page and Donohue 2004), proponents of this construct provide evidence that only the four aspect (self-efficacy, hope, resiliency and optimism) meet the criteria for inclusion (e.g. Luthans and Youssef-Morgan 2017).

The exploratory study of (Contreras, Dreu, and Espinosa 2017) is by far the only research we are aware of that has applied the psychological capital construct to entrepreneurial intentions. The authors observe that the integrated construct as well as its single facets are related to entrepreneurial intentions. The present study investigates the moderation effect of the integrated construct on the relationship between entrepreneurial attitudes and self-employment intentions, mentoring and self-employment intentions, as well as self-employment intentions and entry. Literature so far is dominated by the focus on the aspects of self-efficacy and optimism only.

Self-Efficacy or confidence refers to an individual's belief in personal capacities to achieve a goal or complete a task (Bandura, 1997). In the study of self-employment, it could be referred to as the confidence that inspires individuals to undertake the challenging yet risky role of entrepreneurship or face the challenges of running a business (Luthans, Youssef, and Avolio 2007; Luthans et al. 2007a; Boyd and Vozikis 1994). Self-efficacy is necessary in the different stages of the entrepreneurial process, starting with developing entrepreneurial intentions, recognizing opportunities and harnessing the required resources (Culbertson, Smith, and Leiva 2011; Dimov 2010; Contreras, Dreu, and Espinosa 2017). Its role in lowering risk perceptions and fear of failure are particularly considered important (Goel and Karri 2006; Piperopoulos and Dimov 2015).

The importance of optimism is highlighted by the theoretical concertation of the role of expected outcomes. For example, the planned behavior model stresses that such expectations heighten the behavioral attitude consequently influencing attitudes and behavior (Ajzen, 1985, 1991). Optimism is a psychological state where individuals are confident of positive results now or later (Luthans et al., 2007) and is a driver for action, resilience and commitment (Trevelyan 2008). Hence, optimism is necessary in the choice of an entrepreneurial career, formation of intentions, evaluating opportunities, and startup decisions (Rigotti, Ryan, and Vaithianathan 2011; Storey 2011; Trevelyan 2008).

Less has been documented on the role of hope and resiliency in self-employment intentions and entry. Concerning the aspect of hope, it is described as a motivational state for developing and persisting in achievement of goals (Luthans et al., 2007; Rand & Cheavens, 2012; Snyder, 2002). This description points to the likely impact on the process of translating self-employment intentions into actual entry behavior. Regarding resiliency, the mental capacity to cope with adversity and uncertainty (Luthans, Avolio, Avey, & Norman, 2007a), is observed to correlate with entrepreneurial intentions (Contreras, Dreu, and Espinosa 2017)

and success (Baluku, Kikooma, and Kibanja 2016). The ability to cope with challenges, change, and failure also suggests that resiliency could be an important resource in startup decisions and behavior. In sum, psychological capital could be a powerful resource for nascent and prospecting entrepreneurs. We therefore hypothesize that high psychological capital is required for translating entrepreneurial attitudes into self-employment intentions, and for implementing intentions into actual startup behaviors; and influences the impact of mentoring on intentions.

*H5a.* Psychological capital is related to self-employment intentions.

*H5b.* Psychological capital is related to self-employment entry.

*H5c.* Psychological capital moderates the effects of entrepreneurial attitudes on self-employment intentions.

*H5d.* Psychological capital moderates the effects of mentoring on self-employment intentions.

### **The Impact of Financial Capital**

Whereas we propose that mentoring and psychological resources are essential to implementation of intentions, therefore predictive of entry into self-employment, establishing one's own business involves several processes and activities. Most of these processes are dependent on financial resources. Previous research shows that individuals go into self-employment because of opportunities or necessity (Xavier-Oliveira, Laplume, and Pathak 2015; Verheul et al. 2010). However, financial capital is a relevant resource (Xavier-Oliveira, Laplume, and Pathak 2015; Arenius and Minniti. 2005; Dunn and Holtz-Eakin 2000; Cetindamar et al. 2012) which enables individuals to implement their planned entrepreneurial activities. Although this is disputed by Kim, Aldrich, and Keister (2006) findings, financial capital at least has influence on the approach individuals use to become entrepreneurs (Bastié, Cieply, and Cussy 2013). Hence individuals with limited access to financial resources have limited possibilities of entry into entrepreneurial roles. This implies that only those with financial ability have higher likelihood of exploiting entrepreneurial opportunities, especially when there are other alternative employment opportunities (Xavier-Oliveira, Laplume, and Pathak 2015). We therefore hypothesize that:

*H6.* Lack of financial capital reduces the likelihood of entry into self-employment.

## Methods

### Procedure

We conducted two studies with university students in their final year/ semester of their degree courses in Germany and East Africa (Uganda and Kenya). For the German sample, finalizing students at University of Marburg were requested via student mailing lists to complete an online questionnaire (T1). For the East African sample, finalizing students at Makerere University (Uganda), Kisii and Maseno Universities (Kenya) were contacted in their lecture rooms through their professors since student mailing lists were not available for these universities. To effectively study the link between self-employment intentions and entry, and to overcome some of the shortcomings of cross-sectional data, we applied a longitudinal design, collecting data on continuous mentoring and entry into self-employment in Study 2. All participants were contacted via e-mail one to two years later to complete an online follow-up questionnaire (T2).

### The sample

At T1, a total of 786 students completed the study questionnaire; 498 from East African and 288 from Germany. Of the overall sample, 55% were female. They were on average aged 23.45 years ( $SD = .62$ ). Most participants had never had any self-employment or business related experience (75.2%). All participants were in their last semester, thus completing their degree courses at most in six (6) months' period from the time of completing the questionnaire. Majority of the students (75.2%) had never had an experience in self-employment.

At T2, only students who had participated in Study 1 and indicated their willingness to participate in the follow-up survey (458 East African and 278 German) were contacted via e-mail. This process yielded 103 complete responses that we were able to match with the responses of T1. These included 50 from East Africa (24 females & 26 males) and 53 from Germany (30 females & 23 males); thus overall males were slightly more than the female (51.5%) at T2. Among the East African participants, 12 had entered salaried-employment, 18 had entered self-employment, 11 were still unemployed, while nine were still in school. Among the German participants, 14 had entered salaried employment while only three were in self-employment, five were unemployed and 21 were still in school. Those still in school included those who had enrolled for graduate studies or had not yet graduated (28.2% of the total sample). On average, participants were aged 25.1 years ( $SD = 3.26$ ). Regarding their

school completion time, 18.4% reported to have graduated 6 months before the follow-up survey (T2), 28.2% had graduated in a period of six months to one year, while only 25.2% had graduated in a period of one to two years before the follow-up survey. Moreover, 77.7% did not have previous experience in self-employment. Overall, the descriptive characteristics of the samples at T1 and T2; regarding age, gender and previous experience in self-employment were quite similar, hence we can assume no selection biases at T2.

### **Measures**

Descriptive statistics and inter-correlations of all measures used in Studies 1 and 2 are provided in Table 1.

*Insert Table 1 around here*

*Mentoring:* Focus for measuring students' participation in formal and informal mentoring relating self-employment or business in general. The instrument was purposively developed for this study. The entire instrument can be seen in Appendix 1. For the cross-sectional study (T1), the instrument consisted of 22 items (sample item: I have been provided with practical suggestions for becoming self-employment). For the follow-up questionnaire, eight (7) items were constructed focusing on continued access to mentoring after graduation (sample item: Since graduation, I have been guided on practical steps to entering self-employment or setting up a personal business). Items measured the frequency of access to or participation in different aspects of entrepreneurial mentoring on a 5-point Likert type scale; 1 (Never) to 5 (Always). The high reliability coefficients ( $\alpha = .97$  for T1, and  $\alpha = .94$  for T2) indicate internal consistency of these instruments.

*Entrepreneurial Attitudes:* were measured using Schwarz et al. (2009) items for reflecting general attitudes towards entrepreneurship. The instrument consisted of 2 items ( $\alpha = .65$ ; sample item: I would rather found a new company than be the manager of an existing one). These items were measured on a 5-point Likert scale (1 – strongly disagree to 5 – strongly agree).

*Culture:* To explore the effect of culture, we compared Germany and East Africa regarding the impact of mentoring on entrepreneurial attitudes and self-employment intentions. We used (Hofstede, Hofstede, and Minkov 2010) categorization of countries on the individualism-collectivism dimension. Accordingly, Germany scores highly on the individualism dimension (67) compared to East Africa (25 for Kenya; data for Uganda is not

yet available but we assume no differences between Kenya and Uganda, given that another country in the East African Community - Tanzania has the same scores).

*Psychological capital:* The Psychological Capital Questionnaire (PCQ) in its self-rater version (Luthans, Avolio, & Avey, 2007) was adopted. This questionnaire measures four aspects of psychological capital (self-efficacy, hope, resiliency and optimism) with six items for each dimension, measured on a 6-point Likert scale (1 – strongly disagree to 6 – strongly agree). Psychometric data from an analysis by Dawkins, Martin, Scott, and Sanderson (2013) revealed that the PCQ has an overall reliability of Cronbach  $\alpha$  ranging from 0.88 – 0.89. The internal consistency reliability in the present study was close to this range ( $\alpha = .87$ ).

*Self-employment intentions:* were measured using (Liñán & Chen, 2009) entrepreneurial intentions questionnaire. The items were rated on a 7-point Likert scale ranging from 1 (totally disagree) to 7 (totally agree). The instrument composed of six (6) items ( $\alpha = .97$ , sample item: I am determined to create a business in the future).

To measure *self-employment entry* (T2), participants were asked to indicate their present employment status (1 = salaried employment, 2 = self-employment/ freelancing, 3 = unemployed, 4 = still in school/ further education).

To measure the control variable (lack of financial capital), we asked participants to indicate whether their entry into self-employment had been restrained by lack of capital (0 = no, 1 = yes).

### **Analytic Strategy**

We used the PROCESS Macro (Hayes 2013) in SPSS to test our hypotheses. Because existing evidence show that entrepreneurial attitudes, intentions, and startup are also affected by gender (Santos, Roomi, and Liñán 2016), age (Hatak, Harms, and Fink 2015) and past experiences (Cassar 2014), we controlled for the effects of these variables in the analyses of Study 1. With reference on our conceptual model and hypotheses, the mediating effects of entrepreneurial attitudes in the relationship between mentoring and self-employment intentions were computed. In this analysis (using PROCESS model 29), culture was included as the moderator of the effect of mentoring on entrepreneurial attitudes as well as on self-employment intentions; while psychological capital was included as a moderator of the mediated moderation effects as well as the direct effects of mentoring on self-employment intentions.

Regarding Study 2, self-employment intentions (T1) is considered as the independent variable, while self-employment entry (T2) is the outcome variable. To examine the likelihood of being self-employed, as opposed to being salaried employed or unemployed or enrolling in further education, we applied multinomial regression analysis. We include lack/non-lack of financial capital as a control variable in our regression model.

## Results

Results of the partial correlations in Table 1 (controlling for age, gender, and previous business related experience) offer preliminary support for the hypotheses. As posited, mentoring was positively related to entrepreneurial attitudes (*H3a*) and self-employment intentions (*H3b*), yet attitudes were positively related to self-employment intentions (*H1*). Our results also show significant relations for psychological capital with self-employment intentions (*H5a*); as well as with mentoring and entrepreneurial attitudes implying that students who participate in entrepreneurial mentoring are likely to have higher psychological capital, stronger entrepreneurial attitudes and higher intentions to establish one's own business. Table 2 presents MANOVA results of comparisons of participants on different predictor variables by employment status (at T2) and country. These results show that participants who had gone into self-employment had significantly higher mean self-employment intention (T1) and continuous mentoring (T2) and lower mean regarding lack of capital (T2) in comparison to those who were unemployed, or who had gone into salaried employment or who had continued with education. In addition, East African participants had significantly higher mean scores on intentions (T1) continuous mentoring (T2) and psychological capital (T1)

*Insert Table 2 around here*

*Insert table 3 around here*

The results of the regression analyses are presented in Table 3. Regarding entrepreneurial attitudes, 27% (T1) of the variance could be predicted; while 68% of variance in self-employment intentions could be predicted (T1). At T2, our model also predicted 61% of the variance regarding self-employment entry (T2). This pattern of results provides further support for the partial correlation results mentioned above. Mentoring is positively associated with entrepreneurial attitudes (*H3a*) and self-employment intentions (*H3b*). Moreover, the direct impact of mentoring was much stronger on intentions than on attitudes. On the other

hand, there were significant negative effects of country on both entrepreneurial attitudes and self-employment intentions (coded as: 0 = East Africa, 1 = Germany). This denotes the influence of culture on attitudes and intentions; whereby entrepreneurial attitudes and intentions are higher in the collectivistic than in the individualistic culture. The implication of this finding is explained in the discussion section. Again, the effects are stronger on intentions ( $B = -1.29$ ,  $CI = -1.55$  to  $-1.02$ ) than on attitudes ( $B = -.55$ ,  $CI = -.80$  to  $-.32$ ). These results disapprove *H4a* and *H4b*. Concerning psychological capital, our results reveal positive significant effects on intentions ( $B = .37$ ,  $CI = .20$  to  $.53$ ). Therefore, *H5a* was confirmed.

The mediational role of entrepreneurial attitudes, and the moderating effects of country differences (culture) and psychological capital on self-employment were tested using the PROCESS Macro (model 29). Thus all these effects were tested simultaneously in one regression model. Our results reveal positive and significant conditional direct and conditional indirect effects of mentoring on entrepreneurial attitudes, with a significant index of moderated mediation (Index = .03, Boot CI = .00 to .09). Thus *H3c* is supported. The effect of mentoring on self-employment intentions via entrepreneurial attitudes, conditioned by psychological capital, is high at higher level of psychological capital compared to the effect at low and moderate levels. In addition, the effect of mentoring on entrepreneurial attitudes and intentions moderated by country is positive and significant for both German and East African samples. However, the effect is relatively higher for Germany, confirming that mentoring has higher impact on self-employment intentions in individualistic than in collectivistic countries. Hence *H3c* and *H3d* are supported.

*Insert Figure 1 and Figure 2 around here*

*Insert figure 3 and Figure 4 around here*

Specifically, the interaction effect of mentoring with culture (country differences) on entrepreneurial attitudes ( $B = .27$ ,  $CI = .07$  to  $.46$ ) is positive and significant, yet the effect is even higher on self-employment intentions ( $B = .48$ ,  $CI = .25$  to  $.70$ ). Figure 2 shows the two-way interaction effect of mentoring and country on self-employment attitudes. Whereas mentoring is related to higher self-employment intentions in both samples, the increase is higher for the German group. At low levels of mentoring, the East African sample reported higher self-employment intentions than the German one. However, this is inversed at high level of mentoring. This pattern is quite similar for the interaction effect of mentoring and country on entrepreneurial attitudes (Figure 3).

Regarding the interactive effects of mentoring with psychological capital, our results reveal negative significant effects on self-employment intention ( $B = -.16$ ,  $CI = -.30$  to  $-.02$ ); hence *H5c* is confirmed. This effect is visualized in Figure 4; which shows that participants with high psychological capital had higher intentions at all levels of mentoring. However, entrepreneurial intentions tend to increase more among those with low psychological capital when the level of mentoring increases. For the interactive effects of attitudes and psychological capital, there was a positive significant effect on self-employment intentions ( $B = .13$ ,  $CI = .02$  to  $.24$ ), supporting *H5d*. Figure 5 visualizes these interaction effects. Whereas self-employment intentions increase with increased strength of entrepreneurial attitudes for participants with high psychological capital, the increase in intentions for those with low psychological capital is lower. However, it should be noted that entrepreneurial attitudes are the mediator in the moderated mediation, hence it already involves the interactive effects of mentoring and country differences.

We proposed that once entrepreneurial intentions are formed, there is a high likelihood that individuals will implement the intentions by starting a business of their own. However, we propose that movement from intentions to self-employment entry requires continued mentoring, psychological capital and financial capital. Therefore, in Study 2, we measured level of continued participation in mentoring activities; and also whether participants had joined self-employment or other occupational alternatives after graduating from college. To test our assumptions, we applied multinomial regression analysis.

*Insert figure 5 around here*

Results in Table 4 show that participants with higher entrepreneurial intentions (at T1) were more likely to be self-employed (at T2) than in salaried employment ( $B = -1.74$ ,  $p < .01$ ), or unemployed ( $B = -1.58$ ,  $p < .05$ ), or still in school ( $B = -1.54$ ,  $p < .05$ ). This result supports *H2*. Similarly, continued entrepreneurial mentoring predicted the likelihood of going into self-employment instead of going into salaried employment ( $B = -2.24$ ,  $p < .01$ ) or staying unemployed ( $B = -2.73$ ,  $p < .01$ ) or remaining in school ( $B = -2.05$ ,  $p < .01$ ); thus *H3d* is also confirmed. However, psychological capital did not predict the likelihood of going into self-employment or any of the alternative employment statuses. Therefore, *H5b* is not supported. Even though, we observe that the odds were marginally positive for salaried employment. Concerning country differences, results in Table 4 further show that country predicted the likelihood of being un-employed or going into self-employment ( $B = 4.42$ ,  $p < .01$ ). Particularly, there were higher odds for a participant in Germany, compared to East

Africa, to remain unemployed than to go into self-employment. Therefore, *H4e* is confirmed. Our results also show that lack of financial capital significantly predicted the likelihood of remaining unemployed ( $B = -3.78, p < .05$ ) or remaining in school ( $B = -3.02, p < .05$ ) rather than being self-employed, which provides support for *H6*. Hence individuals with no financial capital are less likely to enter self-employment, which could affect the implementation of one's entrepreneurial intentions or the effectiveness of mentoring geared towards business start-up.

### **Discussion**

The current labor market dynamics, notably, the high youth unemployment and exacerbating job insecurity stresses the importance of flexibility in the processes of growing one's career. For young people, such protean mindsets and behaviors are essential for school-to-work transition (Lent and Brown 2013). Hence young persons should be willing to consider non-traditional employment options, including self-employment, which is considered among the career adaptive behaviors (Tolentino et al. 2014). Specifically, self-employment has increasingly become an essential employment option in situations or places where there are limited openings in traditional salaried-employment, for example, in less developed economies (Falco and Haywood 2016). Consequently, there are enormous efforts to increase youth entrepreneurship in countries such as Uganda and Kenya through training and mentoring programs and financial support (see: Blattman, Fiala, and Martinez 2014). In light of these economic conditions, the present study investigates the role of mentoring and psychological capital in the development of intentions to become self-employed; as well as in actual entry into self-employment. The findings presented above indicate that mentoring, attitudes and psychological capital have substantial impact on entrepreneurial intentions. Concerning entrepreneurial entry, we find that intentions, continuous mentoring and financial capital are essential contributors. Moreover, there seems to be substantial differences between countries in likelihoods of new graduates going into self-employment.

More specifically, the results of Study 1 confirmed that experiencing mentoring, having positive entrepreneurial attitudes, and psychological capital work together to enhance entrepreneurial intentions. Our results suggest that mentoring is significantly associated with entrepreneurial intentions (*H3b*). In addition, our hypothesis that this association is mediated by entrepreneurial attitudes (*H3c*) could be accepted. There are different ways in which

mentoring enables entrepreneurial startups, including support in the identification of entrepreneurial opportunities (St-Jean and Tremblay 2011), acquisition of entrepreneurship skills (Xiao and North 2016), and stimulating positive perceptions of entrepreneurship (Lafuente and Vaillant 2013). The present study confirms that participation in entrepreneurship activities is associated to more positive attitudes towards entrepreneurship and the intent to become self-employed. This suggests that entrepreneurial mentoring activities should not only focus on developing technical skills of prospecting entrepreneurs, but also identifying and addressing attitudinal loopholes. In line with the planned behavior theory (Ajzen 1991), attitudes play an important role in development of behavior intentions, and the intensity of intentions. It is essential, therefore, that mentors should increasingly use motivational approaches, in addition to the technical aspects, to inspire individuals into self-employment.

There was support for our assumption that the association between mentoring and attitudes as well as the association between mentoring and intention vary between countries, which suggests the role of national culture, and or the level of (economic) development. The associations of mentoring with both attitudes and intentions were stronger for Germany than for East Africa (*H4c* and *H4d*), suggesting that entrepreneurial mentoring is more likely to be successful in Germany than in the East African Community. In our hypothesizing, we attributed this to culture, such that entrepreneurial mentoring is more effective in individualistic than in collectivistic countries. Other possible explanations relate to the quality of mentorship and resources needed for entry into self-employment. Poor quality of mentoring systems is a major challenge to success of entrepreneurial mentoring (Ting, Liu, and Qin 2017). Especially in less developed countries where there is limited access to high quality mentors, while most of formal mentoring is usually only for a limited period of time given inadequate funding for such programs. This also implies that young individuals interested in entrepreneurship in less developed countries learn more informally than through formal mentoring arrangements; moreover, there are fewer successful entrepreneurs to learn from in less developed countries than in developed countries. The propensity of mentoring to enhance entrepreneurial attitudes and intentions could also be affected by the availability of startup resources. Lack of startup capital is the most reported factor restricting entrepreneurial growth in less developed countries (e.g. Orobia, Sserwanga, and Rooks 2011; Gindling and Newhouse 2014; Korunka et al. 2010; Tushabomwe-Kazooba 2006). Participating in entrepreneurial mentoring activities may not necessarily boost self-employment intention,

when one still has to content with the challenge of no or limited resources to finance the startup process.

Moreover, our findings indicate that the relationship between mentoring and intentions, as well as the relationship between attitudes and intentions are further influenced by one's amount of psychological capital. For the start, we observe that individuals with higher psychological capital seem to have higher entrepreneurial attitudes and self-employment intentions compared to those with low psychological capital (*H5c* and *H5d*). However, our results indicate that mentoring is associated to higher intentions among individuals with low psychological capital. Importantly, our results further suggest that psychological capital is not only important for entrepreneurial success (Pease and Cunningham 2016; Baluku, Kikooma, and Kibanja 2016; Hmieleski and Carr 2008) and wellbeing of the entrepreneurs (Baron, Franklin, and Hmieleski 2016), but also a resource that is useful in the development of self-employment intentions (Contreras, Dreu, and Espinosa 2017). Entrepreneurship involves numerous tasks and processes that are stressful, yet with high level of risk. Individuals with low psychological resources such as confidence, optimism and resilience may find entrepreneurship less attractive. Hence self-employment could be more attractive to individuals with high psychological capital, who believe that they have the required ability to overcome the challenges and risks involved, or with high optimism for good returns on investment. Thus mentoring is expected to strengthen self-employment intentions for such individuals. However, our results also show that mentoring has the potential to enhance the intentions o

f individuals with low psychological capital. As proposed by the proponents, psychological capital is a state-like resource that is relatively stable but can be improved through certain interventions (Luthans and Youssef-Morgan 2017) including tasks that can be performed during entrepreneurial mentoring such as goal setting exercises and feedback. Hence, business-related psychological capital can also be boosted through mentoring, which can in turn strengthen intentions and efforts to establish one's own business.

An important call in applying theory of planned behavior to entrepreneurship research has been the invitation to focus on implementation of entrepreneurial intentions (e.g. Fayolle and Liñán 2014; Van Gelderen, Kautonen, and Fink 2015). Particularly, it should be explored how people move from having strong intentions to successfully negotiating their entry into self-employment. Interventions to strengthen behavior intentions, such as mentoring, can only be meaningful if individuals are capable of implementing those intentions (Ajzen 1985).

Unfortunately, due to the relatively small number of respondents who participated in the follow-up survey (Study 2), we were not able to examine the mediators and moderators of the association between intentions and self-employment entry. However, we were able to test factors that substantially determine whether one goes into self-employment, hence can be considered to be useful in the movement from intentions to actual entry. Our findings relating to *H2* support previous research findings, based on planned behavior theory, that entrepreneurial intentions predicts entry into self-employment (e.g. Kolvereid and Isaksen 2006; Kautonen, van Gelderen, and Tornikoski 2013). Our results indicate that individuals who had stronger entrepreneurial intentions towards the end of their college time (Study 1) were more likely to have joined self-employment, than being in salaried employed or being unemployed, or even continuing with further education (Study 2). This could also suggest that development of entrepreneurial intentions towards the time for entry into the labor market could contribute significantly on entry into self-employment before trying positions in salaried employment. Importantly, our results also provide support for the idea that self-employment could provide an alternative for fast school-to-work transition, and therefore possibilities of avoiding unemployment immediately after completion of school.

However, Van Gelderen, Kautonen, and Fink (2015) caution that it could be risky to focus only on intentions in predicting likelihood of entry; and proposes that other factors that facilitate or hinder this process should be considered. In the present study, based on findings of Study 1 and the socialization perspective (Starr and Fondas 1992), we considered the contribution of continuous mentoring, psychological resources and availability or lack of capital resources. We also consider country differences. Concerning mentoring (*H2d*), our results indicate that those who had continuous entrepreneurial mentoring after graduation were more likely to go into self-employed compared to likelihood of going into salaried-employment or remaining unemployed or continuing with school. Hence, our results confirm that mentoring has impact on both entrepreneurial intention and actual entry into self-employment. However, for intentions to translate into entrepreneurial actions, continuous mentoring may be required. The process of starting an enterprise involves complex processes, and consequently stressful. Therefore, those who have support of experienced entrepreneurs and skilled mentors are more likely to successfully engage in these processes. Nascent and prospecting entrepreneurs require constant inspiration, skill development, confidence boosts, and identifying themselves with the entrepreneurship profession. All these can best be

enhanced through mentoring, in line with what has been posited as the tasks of entrepreneurship mentors (e.g. St-Jean and Audet 2012; St-Jean 2012; Sullivan 2000).

In addition to the contribution of intentions and mentoring, our results further indicate that actual entry into self-employment is also dependent on the availability of financial capital (*H6*) as well as cultural (*H3e*) or economic conditions. Results of Study 2 show that those who reported lack of capital were more likely to stay in school or remain unemployed. However, those who were already in salaried employment did not report lack of financial capital as a constraint to going into self-employment, which further highlights the importance to intentions and mentoring. Concerning country differences, individuals in Germany were more likely to be unemployed than to be self-employed, compared to their East African counterparts. This result points to either the effect of culture or economic conditions. In consonance with our theoretical framework regarding the impact of national culture, this finding confirms that startup could be faster in collectivistic countries. When there is a business opportunity, individuals can easily obtain support from family and friends.

However, another relevant cultural perspective regards uncertainty tolerance. Germany is considered to have a high ambiguity intolerance tendency (Raab, Stedham, and Neuner 2005; Weissenstein et al. 2014; Hofstede, Hofstede, and Minkov 2010), which discourages entrepreneurship, as has been highlighted in extant literature on entrepreneurial culture (e.g. Mueller and Thomas 2001). On the other hand, economic conditions could be one of important explanations for higher entry into self-employment among East African graduates compared to German graduates. East African countries have worryingly high youth unemployment rates (Awiti and Scott 2016; Chigunta 2017; Lakuma, Marty, and Kuteesa 2016), implying that self-employment is the most available employment opportunity for the majority of young people graduating from colleges in East Africa in recent years. On the other hand, Germany reports one of the lowest youth unemployment rates in the world, and actually the lowest in Europe (see: Dietrich and Möller 2016). This implies that graduates are more likely to find job placements soon after graduation; hence self-employment among young people becomes limited to those who are opportunity driven or seeking autonomy in the workplace. Another possible explanation for the differences between less developed and developed countries regarding self-employment entry could be the statutory, procedural, and capital requirements. The procedures one must undertake and amount of resources required for investment vary substantially between countries. Future research could investigate the impact of the statutory and procedural requirements.

### **Strengths, Limitations and Future Research**

The present paper contains some strengths that highlight its contribution to self-employment intentions and entry research. The major strength of the paper is the examination of antecedents of self-employment intentions and entry, and also examining the association between intentions and entry. Most of previous research studied either intentions only or entry only. In the present study, and in line with planned behavior theory, we studied intentions and entry as parts of one continuous process of successfully creating one's own business. Relatedly, the second strength of the paper regards the application of the longitudinal approach to examine the association between intentions and entry into self-employment. It is purported that this is the best approach to investigating the entrepreneurial process (Liñán and Fayolle 2015). Moreover, we are able to replicate findings of similar studies (e.g. Kolvereid and Isaksen 2006; Kautonen, van Gelderen, and Tornikoski 2013). Another important strength is the cross-cultural sample used. Consequently, the study explains the variations in intentions and entry between countries, which variations relate to differences in culture and economic conditions prevalent in a country. In addition, we apply a multi-theoretical approach, which allows for testing the contribution of different predictors to the entrepreneurial process. Consequently, our findings are able to explain big variances in self-employment intentions and entry. With these strengths, we are confident that our study makes an important contribution in understanding the entrepreneurial process.

While the study has a number of strengths, it also contains some limitations that should be addressed in future research. The first weakness relates to the timeframe between Study 1 and Study 2. Whereas the longitudinal approach is best to explaining enterprise creation process, the time between the measures has to be adequate. It has been found that the association between entrepreneurial intentions and behavior is stronger in a longer period than in the short-term; see Liñán and Fayolle (2015) review of intentions research. In the present study, the period between measures ranged from one to two years. This is a period of about six to 18 months after graduation, which could be considered short for individuals to have successfully negotiated their entry into self-employment. We therefore propose that further intentions – entry longitudinal studies should consider a long period between the measures. Concerning the variations between countries, we only examined the differences in intentions and entry between Germany and East Africa. Whereas these provide good cross-cultural comparison, they can be said to lie at the extreme ends of the economic development continuum, which could inflate the observed differences. We suggest that future research

should compare more countries that are representative of the entire economic development continuum and for a wider cross-cultural comparison.

### **Conclusion**

Our studies suggest that mentoring makes a substantial contribution to the development of positive attitudes towards entrepreneurship, and these attitudes affect the strength of intentions to become self-employed. Yet intentions predict the likelihood of entry into self-employment. However, the effect of mentoring on attitudes and intentions varies between countries suggesting the impact of economic development on the quality of entrepreneurship mentoring, but also the impact of culture on effectiveness of entrepreneurial mentoring. In addition, the direct and indirect effects of mentoring on intentions are further affected by graduates' psychological resources, such that the effect of mentoring and attitudes are higher for individuals reporting high psychological capital. However, psychological resources did not have substantial impact on the likelihood of entry into self-employment. Finally, Study 2 further shows that actual entry into self-employment is also dependent on availability of financial capital to facilitate activities of the startup process. Variations between countries in the likelihood of actual entry into self-employment were also observed. These studies suggest that continuous mentoring is important for self-employment entry. Particularly, it could be important for mentors to support prospecting entrepreneurs in developing strategies for accessing financial resources to facilitate the startup process.

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**Table 1.** Descriptive statistics and partial correlations of variables (T1)

	M	SD	$\alpha$	1	2	3	4
1. Mentoring (T1)	2.88	1.10	.97	1			
2. Entr. attitude	3.76	1.39	.65	.30***	1		
3. Psychological capital	4.39	.61	.87	.21***	.18***	1	
4. S.E. Intentions	4.87	1.95	.97	.46***	.42***	.27***	1

Note:

\*\*\* p < .001, Controls: age, sex, country, and previous self-employment experience

**Table 2.** MANOVA results - Differences between employment status categories (T2) and countries regarding predictors

Variable	Employment status				Country			
	Status	M	SE	F	Country	M	SE	F
Self-employment Intentions (T1)	Self-employed	6.27	.42	7.80***	East Africa	5.91	.20	47.46***
	Salary-employed	4.02	.24		Germany	3.65	.26	
	Unemployed	4.19	.36					
	Still in school	4.65	.27					
Mentoring (T2)	Self-employed	3.57	.19	18.18***	East Africa	3.05	.09	64.33***
	Salary-employed	2.04	.11		Germany	1.84	.12	
	Unemployed	1.94	.17					
	Still in school	2.25	.12					
Psychological capital (T1)	Self-employed	4.78	.21	2.20	East Africa	4.67	.10	2.69***
	Salary-employed	4.67	.12		Germany	4.41	.13	
	Unemployed	4.18	.18					
	Still in school	4.52	.13					
Lack of financial capital	Self-employed	1.64	.13	1.03	East Africa	1.85	.06	1.84
	Salary-employed	1.75	.07		Germany	1.72	.08	
	Unemployed	1.90	.11					
	Still in school	1.85	.08					

Note:

\*\*\* p < .001, Lack of financial capital (0 = no, 1 = yes)

**Table 3.** Regression analyses for mediation and moderation effects

Predictors	Entrepreneurial attitudes				Self-employment intention			
	<i>B</i>	<i>SE</i>	<i>LLCI</i>	<i>ULCI</i>	<i>B</i>	<i>SE</i>	<i>LLCI</i>	<i>ULCI</i>
Constant	-.51*	.22	-.94	-.08	5.10***	.21	4.70	5.51
Sex	.28**	.09	.11	.45	-.09	.08	-.25	.07
Age	.15*	.07	.01	.30	-.05	.07	-.18	.08
Previous experience	.09	.11	-.12	.30	.43***	.10	.25	.62
Mentoring (T1)	.43***	.05	.33	.52	.55***	.05	.45	.65
Country	-.55***	.12	-.80	-.32	-1.29***	.14	-1.55	-1.02
Entrepreneurial attitudes					.30***	.04	.22	.37
Psychological capital					.37***	.08	.20	.53
Mentoring × country	.27**	.10	.07	.46	.48***	.11	.25	.70
Mentoring × psychological capital					-.16*	.07	-.30	-.02
Entrepreneurial attitudes × psychological capital					.13*	.06	.02	.24
Model summary	F (6, 779) = 57.06***, R <sup>2</sup> = .27				F (10, 775) = 286.79***, R <sup>2</sup> = .68			
<i>Index of moderated mediation</i>					<i>Index</i>	<i>(Boot)</i>	<i>Boot</i>	<i>Boot</i>
						<i>SE</i>	<i>LLCI</i>	<i>ULCI</i>
Mediator: entrepreneurial attitudes					.03	.02	.00	.09
<i>Index of Conditional moderated mediation (moderator: country; mediator: entrepreneurial attitudes)</i>								
Low level of psychological capital					.06	.03	.02	.12
Moderate level of psychological capital					.08	.03	.02	.14
High level of psychological capital					.10	.04	.03	.18
<i>Index of Conditional moderated mediation (moderator: psychological capital; mediator: entrepreneurial attitudes)</i>								
East Africa					.04	.02	.01	.09
Germany					.08	.03	.02	.15

Note:

\*\*\* p < .001; Sex (Female = 0, Male = 1); Country (East Africa = 0, Germany = 1)

**Table 4.** Multinomial regression for likelihood of other employment statuses as compared to self-employment

Employment status <sup>a</sup> / predictors	<i>B (SE)</i>	<i>95% CI for Odds Ratio</i>		
		<i>Lower</i>	<i>Odds Ratio</i>	<i>Upper</i>
<b><i>Salaried employment</i></b>				
Intercept	13.04 (4.98)**			
Intentions_T1	-1.74 ( .65)**	.05	.18	.63
Mentoring_T2	-2.24 ( .73)**	.03	.11	.45
Psychological capital_T1	.56 ( .66)	.48	1.74	6.33
Country	2.63 (1.52)	.71	13.93	273.42
Lack financial capital_T2	-2.42 (1.38)	.01	.09	1.33
<b><i>Unemployed</i></b>				
Intercept	18.14 (5.15)***			
Intentions_T1	-1.58 ( .66)*	.06	.21	.76
Mentoring_T2	-2.73 ( .82)**	.01	.07	.32
Psychological capital_T1	-.87 ( .68)	.11	.42	1.58
Country	4.42 (1.70)**	2.96	83.21	2336.42
Lack financial capital_T2	-3.78 (1.69)*	.00	.02	.64
<b><i>Still in school/ further education</i></b>				
Intercept	15.42 (4.95)**			
Intentions_T1	-1.54 ( .65)*	.06	.22	.77
Mentoring_T2	-2.05 ( .73)**	.03	.13	.54
Psychological capital_T1	-.16 ( .64)	.24	.85	2.98
Country	1.66 (1.44)	.31	5.23	88.03
Lack financial capital_T2	-3.02 (1.43)*	.00	.05	.81

*Note:*

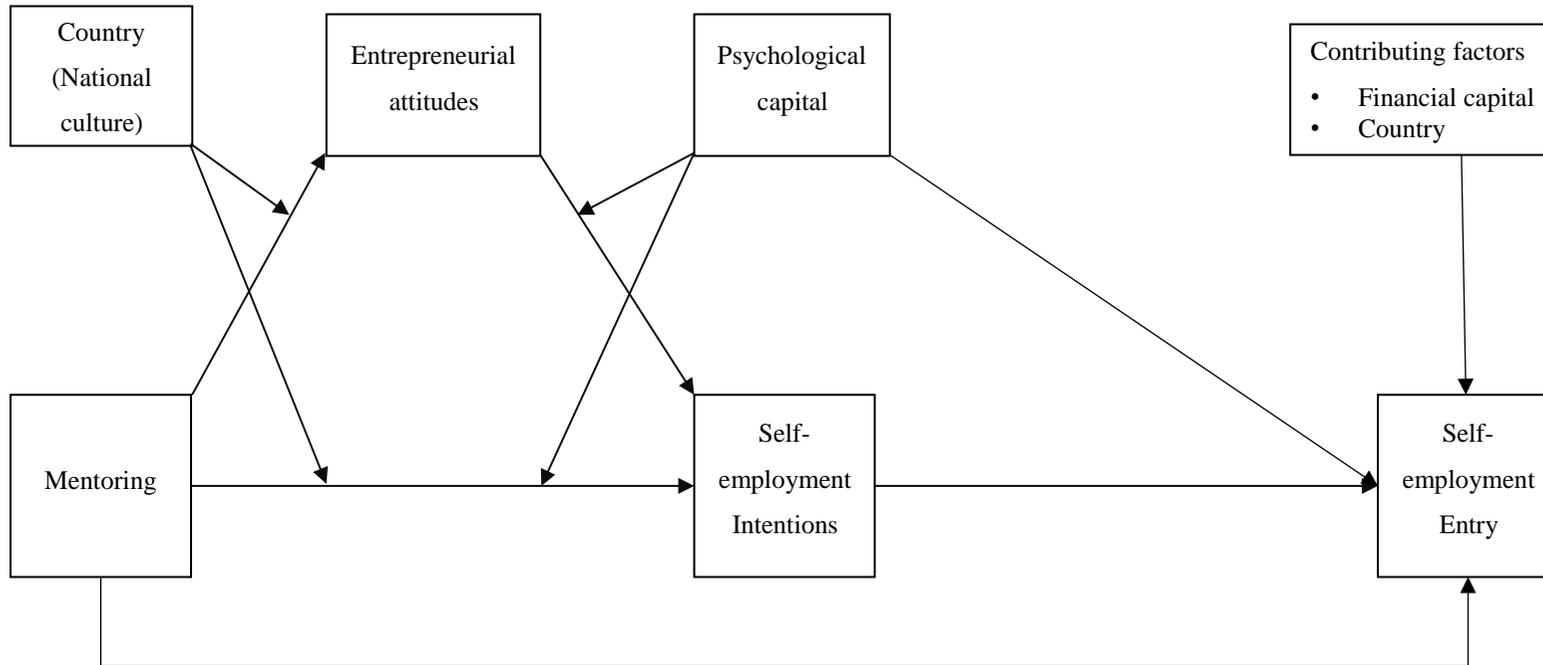
<sup>a</sup> Reference employment category is “self-employment/ freelancing”

$R^2 = .61$  (Nagelkerke), Model  $\chi^2 (15) = 86.41$ ,  $p < .001$

\*  $p < .05$ , \*\*  $p < .01$

Country (East Africa = 0, Germany = 1)

Lack financial Capital (No = 0, Yes = 1)



**Figure 1.** Conceptual model for the study

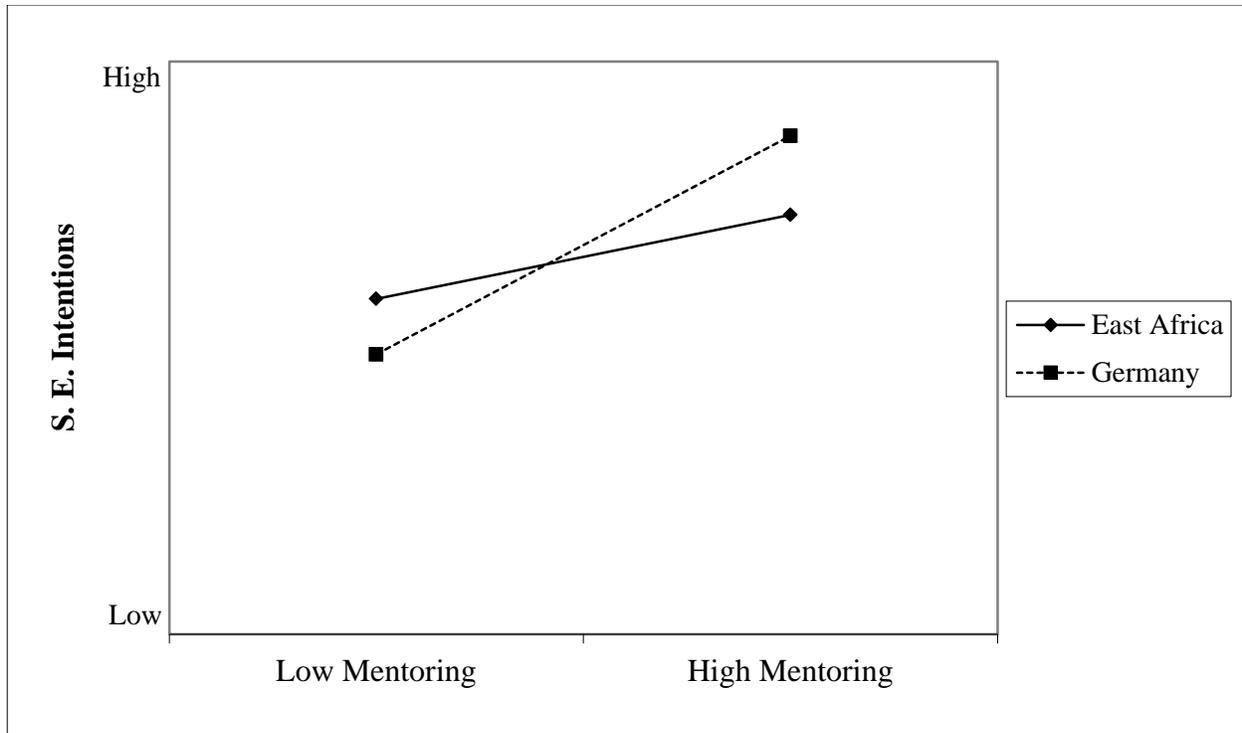


Figure 2. Interaction effects of mentoring and country on self-employment intentions

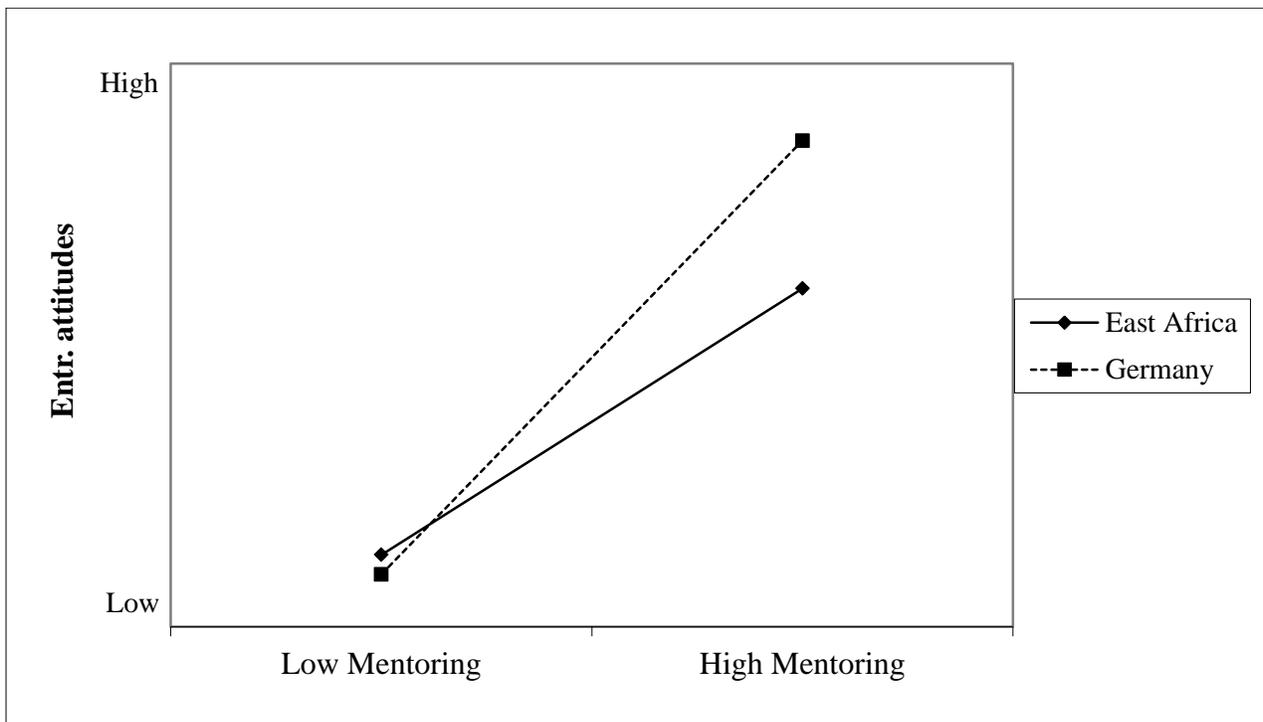


Figure 3. Interaction effects of mentoring and country on entrepreneurial attitudes

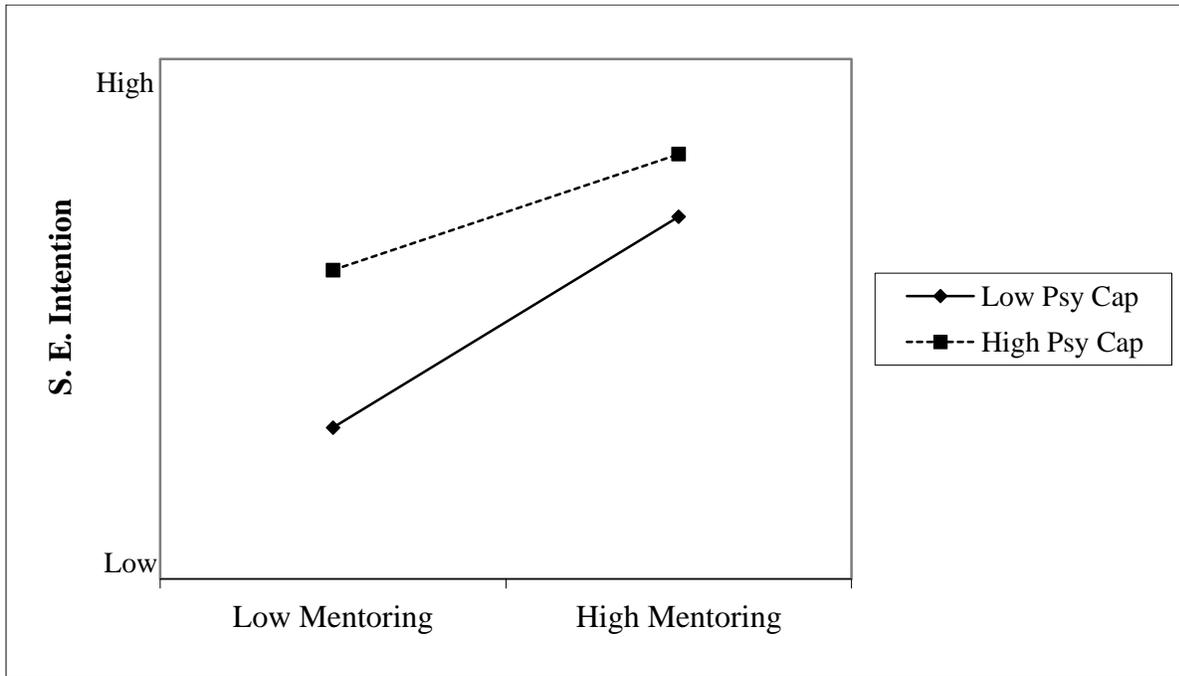


Figure 4. Interactions effects of and psychological capital on self-employment intentions

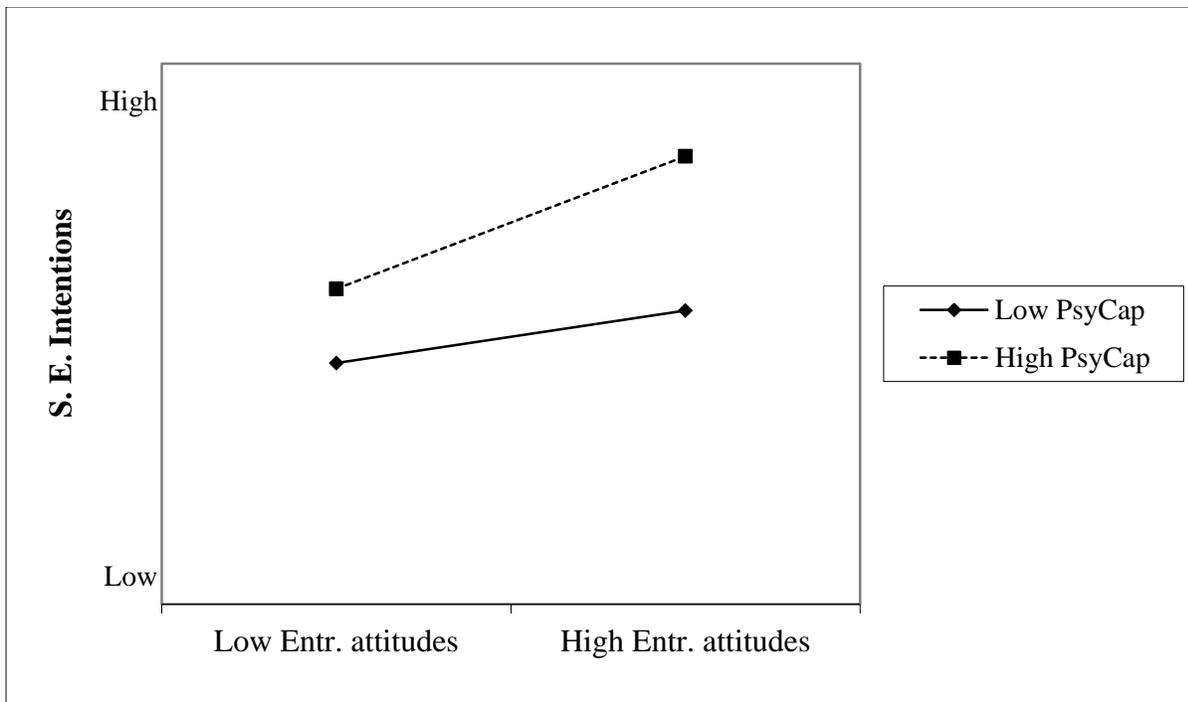


Figure 5. Interaction effects of entrepreneurial attitudes (mediator) and psychological capital on self-employment intentions

**Manuscript #7**

**Journal of Entrepreneurial Behavior & Research Impact of Personal Cultural Values and  
Competences on Subjective Success in Self-employment in Multi-Ethnic Societies**

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## **Abstract**

**Purpose** –The purpose of this paper is assess the impact of personal cultural values and behavioral cultural intelligence on subjective success in self-employment in a multi-ethnic context. Based on Sharma (2010) taxonomy of personal cultural orientations, the paper examines the impact of interdependence and social inequality orientations on subjective success in self-employment (as measured in terms of job satisfaction).

**Design/methodology/approach** – To achieve this purpose, self-employed individuals working in multiethnic communities in East Africa (Uganda and Kenya) were compared with their counterparts in Germany operating in a less culturally or ethnically diverse context. Moderated mediation analysis using PROCESS macro model 8 is applied to measure the direct and indirect effects.

**Findings** – Interdependence and social inequality cultural orientations were positively related to subjective success in self-employment for the East African sample, but not for the Germany sample. The results revealed that the impact of these cultural orientations on subjective success is mediated by behavioral cultural intelligence. However, these indirect effects vary among the two countries.

**Practical Implications** – The findings have implications for entrepreneurial development interventions in less developed countries and for entrepreneurial culture research. Similar to cross-cultural settings, multiethnic business settings involve doing business with people from various ethnic and linguistic backgrounds. This requires cultural adjustments on part of the entrepreneur to effectively transact in these circumstances. Also in the context of unemployment, and injustice in recruitment processes, individuals who accept these inequalities view self-employment as feasible employment and more likely to be satisfied with this form of employment, despite the low earnings.

**Originality/value** – Entrepreneurial culture research has predominantly studied culture at the national level, yet there is sufficient evidence from Schwartz (1992, 1994) and related research that personal cultural values are also important. Moreover, in multiethnic cultures, there are wider cultural variations within a given country, hence the study measures cultural orientation at the personal level. The aspect behavioral cultural intelligence is also applied to a multiethnic

context, demonstrating that cultural intelligence is not only important for doing business in an international setting but also in societies with multitudes of varying local cultures.

**Key words:**

Cultural intelligence; entrepreneurial success, interdependence; personal cultural values; self-employment; social competences and entrepreneurship

## **Introduction**

Self-employment has emerged as an alternative career path for young people rather than searching for opportunities in traditional paid employment. Economic and labor market dynamics have played a big role. The recent economic crisis caused a major decrease in job openings, yet accompanied by massive job losses causing an unemployment crisis (Palaskasy et al., 2014; Reinhart and Rogoff, 2009; Urbanos-Garrido and Lopez-Valcarcel, 2015). Thus self-employment has increasingly become a practical career alternative particularly for young people in countries with higher youth unemployment rates. Similarly, governments are under pressure to reduce unemployment as well as providing sustainable meaningful employment as advocated for by Sustainable Development Goal 8 (Frey et al., 2016; Gore, 2015; Parisotto, 2015). Coupled by the need for improving economic development indexes, self-employment, and or entrepreneurship are being promoted as most feasible solution. Consequently, there is an increase in entrepreneurial startups particularly in less developed countries. In fact, self-employment is the leading form of employment (70% of employed persons) in low income countries (Gindling and Newhouse, 2014). With changing labor dynamics such as movement towards service sector, globalized labor market, increase in population of skilled and semi-skilled immigrants (Fritsch et al., 2012), entry into self-employment is set to continue increasing.

Recent research shows that self-employment is important for individual as well as national development (Williams and Shepherd, 2016). Self-employment however can only be good for individuals and the economy if it is successful. Particularly, individuals may not persist in self-employment if their goals are not met or if they are dissatisfied in this form of employment. Gindling and Newhouse (2014) revealed that only seven percent of the self-employed in developing countries are successful. Previous research has predominantly measured success in objective terms considering aspects such as income, profitability, and growth (Baluku et al., 2016a). In the present study, we focus on subjective success, measured in terms of job satisfaction based on the assumption that the value of success dimensions such as income and improved welfare is best reflected in the extent to which business owners are satisfied in their roles as self-employed.

The study of business performance is dominated by focus on human capital and financial factors (e.g. Caliendo et al., 2015; Coleman, 2007; Cooper et al., 1994; Neeley and Van Auken, 2009). However, Gindling and Newhouse (2014) survey of self-employed in 74 countries

revealed that approximately a third of unsuccessful entrepreneurs share similar characteristics; confirming the assumption that success is also impacted on by the personal characteristics of the entrepreneur (Baluku et al., 2016a). In the present study, we particularly focus on personal level cultural variables. Whereas culture is widely studied in entrepreneurial literature, focus has mostly been geared towards explaining entrepreneurship in terms of national cultures that are conducive to entrepreneurship development and success (e.g. Hayton and Cacciotti 2013; Nabi and Liñán 2013).

The argument in this paper is that personal cultural values and cultural competences are also factors that contribute to success in self-employment, depending on the cultural context. Particularly cultural values are measured at personal level based on the taxonomy personal cultural orientations (Sharma, 2010); which is an operationalization of Hofstede's cultural dimensions (Hofstede, 1984; Minkov and Hofstede, 2011) at the individual level. The paper specifically focuses on two (2) of the ten (10) personal cultural orientations that we presume have strong implications for interpersonal relations in a business setting; namely interdependence and social inequality. Previous research has already demonstrated that social skills such as ability to have quality interactions are essential for entrepreneurial success (Markman and Baron 2003; Baron and Markman 2000). We argue that these two cultural orientations are essential in way entrepreneurs relate to others in business-related situations, consequently affecting success.

It has been observed that within a given culture, there are wider intra-cultural variations (Au, 2000; Fischer, 2006). Moreover, entrepreneurship literature shows that people who start enterprises tend to have similar values and beliefs across countries (McGrath et al., 1992), suggesting that personal values rather than national culture matter most. Hence the impact of personal level cultural values on behavior and behavioral outcomes should not be ignored. The paper further posits that personal cultural values affect behavior and behavior outcomes through cultural competences, particularly cultural intelligence, which is an important factor for behavior in multicultural settings (Ott and Michailova, 2016), including work situations. This resource might be linked to success in a multiethnic business context, such that one's ability to trade with individuals from other ethnicities increases business outcomes and consequently satisfaction of the self-employed. The study particularly measures the behavioral cultural intelligence dimension, which concerns the ability to adapt behavior to the cultural setting (Chao et al., 2017; Van Dyne et al., 2012).

Therefore, the purpose of this study is to extend entrepreneurship culture research by examining the impact of personal cultural values and competences on subjective success in self-employment, based on assumptions that social competences are critical for entrepreneurial success (Baron and Markman 2003). First, the paper examines the relationships of Sharma's personal cultural orientations with subjective success (job satisfaction). Second, the paper shows that cross-cultural competence (cultural intelligence) mediates the impact of these cultural orientations on subjective success in self-employment. Third, the paper shows that these relationships vary among countries based on level of multiculturalism or multi-ethnicity.

### **Theory and Hypotheses Development**

Markman and Baron (2003) propose that *social competence* plays an important role in entrepreneurial success. Social competence, in the entrepreneurial field, concerns entrepreneur's ability to effectively interact with others including employees, customers, suppliers, and other stakeholders in the business. Social competence includes ability to read others, making good first impressions, adapting to a range of social situations and persuasiveness (Baron and Markman 2000). The present study extends these assumptions (theory) by suggesting that in a multiethnic setting, entrepreneurs require to add cultural skills (cultural intelligence) to these social skills to enable them have effective interactions with people from other cultural or ethnic backgrounds. The paper proposes that this is also dependent on a person's cultural values.

### ***Personal Cultural Values and Self-employment***

The emergence of Hofstede's Cultural Dimensions ( Hofstede 1984; Franke, Hofstede, and Bond 1991; Hofstede and Minkov 2010) accelerated the study of the role of culture in business situations. Specific focus has particularly been geared towards differentiating entrepreneurial from non-entrepreneurial cultures (Hayton and Cacciotti, 2013; Li and Zahra, 2012; Mueller and Thomas, 2001). The effect of the values on behavior extends to entrepreneurial situations and activities (McGrath et al., 1992). Whereas culture is largely studied at national or society level following Hofstede's model, it had been highlighted that personal level cultural values cannot be ignored. Within a given culture, individuals significantly vary in their predominant orientations or values (Au, 2000; Fischer, 2006). We presume that individual level cultural values are more proximal, than the national cultural dimensions, to a person's behavior and behavioral outcomes. Hence our focus on the individual level rather than the

national variations. However, personal cultural orientations have not been widely studied in entrepreneurship research. We therefore still develop our hypotheses based on literature related to the Hofstede model.

To enable measurement of Hofstede's cultural dimensions at the personal, Sharma (2010) reconstructs Hofstede's national cultural dimensions into a taxonomy of 10 Personal Cultural Orientations (PCOs). It has been said that Hofstede's dimensions of national culture provide a good framework for understanding how different societies deal with social issues (Minkov and Hofstede, 2011); therefore has provided basis for entrepreneurial culture research in the recent decades. This research has showed that dominant cultural norms and practices have an influence on entrepreneurial activities in a given society (Autio, Pathak, and Wennberg 2013; Li and Zahra 2012; Wennberg, Pathak, and Autio 2013; Tlaiss 2014; Davidsson 1995; Huggins and Thompson 2014).

At the individual level, cultural values are essential for entrepreneurs in accumulating and using and the development of cultural and human resource practices that enhance entrepreneurial performance (Chand and Ghorbani, 2011). Consequently, one's cultural values can directly and indirectly affect success via interpersonal competences. In the following sub sections, we show how Sharma derives social inequality and interdependence personal cultural orientations from the Hofstede model, and hypothesize about the likely relationship with subjective success in self-employment.

#### *Social Inequality Cultural Orientation*

This is derived from the "power dimension" of Hofstede model. Accordingly, power distance focuses how a culture's members accept social inequality and relate with authorities. In small-power distance societies, there are minimal inequalities and interdependence; while large-power distance societies are characterized by high levels of inequality and are polarized between dependence and counter-dependence (Hofstede et al., 2010; Minkov and Hofstede, 2012). However, based on the logic that presenting power distance dimension on a horizontal and vertical axis does not adequately show the difference in power and equality, Sharma (2010) conceptualizes this dimension into two personal cultural orientations: power and social inequality. Sharma defines these orientations in line with (Schwartz, 1992, 1994) values of hierarchy and egalitarianism. Hence, power refers to degree of acceptance of power differences

among members of any community; while social inequality concerns degree of acceptance of inequality among members.

Previous research regarding the impact of power and inequality issues on entrepreneurship have predominantly used Hofstede model; and shows that entrepreneurial behavior is favored in low-power distance cultures (Eroglu and Picak, 2011; Tlaiss, 2014; Vinogradov and Kolvereid, 2010; Wennekers et al., 2010). In high Power Distance societies, power is concentrated within a small group of individuals, while the majority has limited power. This has an impact on innovative and risk-taking behaviour (Fernandez et al., 1997; Sun, 2009), thus impacting negatively on entrepreneurial behaviour. It could therefore be claimed that social inequality orientation is positively related to entrepreneurship and entrepreneurial success; whereby entrepreneurship is used as a platform for reducing social inequalities in society. Moreover, in line with social competence assumptions of Baron and Markman (2003), entrepreneurs who recognize and value social differences among members of society are likely to have better approaches to relate with different customers and stakeholders, which improves customer impressions and network ties. Hence it is hypothesized that:

*H1. Social inequality orientation correlates positively with subjective success in self-employment*

#### *Interdependence Cultural Orientation*

This orientation is derived from the individualistic-collectivistic dimension of the Hofstede mode, which concerns the relationship between the person and the society; or precisely the degree of cohesiveness or looseness of ties between individuals in a group (Franke et al., 1991). Whereas these appear to be two ends of a continuum, there is literature suggesting that a person may have both individualistic and collectivistic tendencies (Oyserman, 2006). Based on these shortfalls and the alternatives provided in the self-construal model (Markus and Kitayama, 1991) and the personal cultural values (Schwartz 1992), Sharma re-conceptualizes this dimension into two (purportedly negatively related) orientations: independence and interdependence. Independence involves preference to act independently, freedom, personal achievement, autonomy and strong self-concept (Sharma, 2010). Contrary, interdependence involves preference to act in groups, reliance on others, attention to group over personal goals and collective achievement.

Research on entrepreneurship culture suggests that business is more suited to cultures where individual rather than collective action is emphasized (Dubina and Ramos, 2016; Huggins and Thompson, 2014). However, regarding success, Rauch et al. (2013) noted that collectivistic tendencies are also important for implementation of innovations. Particularly, it has been linked to women entrepreneurship (Bullough et al., 2013); is essential for entrepreneurial development in so-called collectivistic countries (for example: Zeffane 2014) and also relevant for social entrepreneurship (Pathak and Muralidharan, 2016). In relation to the social competence assumptions, interdependence is also related to ability to establish external ties (Tiessen, 1997), which is also important for example, the ability to obtain external financing for the business; which may consequently lead to success in self-employment. It is therefore hypothesized that:

*H2. Interdependence orientation correlates positively with subjective success in self-employment.*

### ***Cultural Intelligence and Self-Employment***

In the modern world, few businesses if any are operating in a confined cultural setting. Cultural diversity in all societies is increasing, moreover the self-employed are increasingly engaged in cross-border businesses. Their ability to adjust to doing business with individuals from a differing culture, or doing business in cultural context different their own is therefore important. Such capability fits with the what has been labeled cultural intelligence (Earley and Peterson 2004; Crowne 2008; Earley and Mosakowski 2004; Earley 2002). This form of intelligence has been defined as the ability to interact effectively with people from different cultures (Soon and Linn, 2015; Tuleja, 2014); and this involves the ability to shape and exhibit appropriate behavior in a new cultural setting (Thomas 2006).

Such capability is needed for the self-employed to be able not only do business in cross-cultural settings, but also recognizing and respecting differences as well as reconciling and adjusting in such situations (Earley and Mosakowski, 2004; Magnusson et al., 2013; Rauch et al., 2013; Soon and Linn, 2015). Moreover, such capability is still important in domestic businesses (Peus, Frey, Gerkhardt, Fischer, & Traut-Mattausch, 2009) given reduced cultural homogeneity of communities. In the same community, individuals differ on a variety of aspects that require cultural understanding and adjustment such as language, sexual orientation, ethnicity, religion, social class, and political affiliation (Triandis, 2006). Thus the justification for the believe and studies of cultural intelligence as an interactional asset for different professionals

(Erez et al., 2013; McNulty et al., 2016; Thomas et al., 2005; Watkins and Noble, 2016). Several components of cultural intelligence have been proposed (see: Van Dyne et al. 2012; Lange 2012). In the present study, we concern ourselves with the behavioral aspects of cultural intelligence.

Like the bigger domains of culture and intelligence, cultural intelligence may be vital for the self-employed at the different stages of the entrepreneurial activity; from formation self-employment intentions to entry, opportunity recognition and success. Existing research shows that cultural intelligence is related to entrepreneurial intentions and performance (Jiang and Park, 2012; Magnusson et al., 2013) including the abilities to recognize and willingness to exploit cross-national or cross-cultural business opportunities. This is reflected in the link between cultural intelligence and commitment to study international business (Ramsey et al., 2014) and export performance of small business owners (Charoensukmongkol, 2016). Cultural intelligence is also an important competency for decision making, effective teamwork, leadership, management and negotiations (Brislin et al., 2006; Earley, 2002; Earley and Mosakowski, 2004; de la Garza Carranza and Egri, 2010) as well as motivating creativity (Bogilović and Škerlavaj, 2016). All these are essential in the process of managing one's own business. Competition in the contemporary business world is no longer localized. Therefore, a culturally diversified team is required, bringing together different cultural resources for a team. Evidence suggests that cultural diversity within the business and in the operating environment does help gain and maintain competitive advantage (Groves and Feyerherm, 2011). However, the business owner needs the capability to harness and manage such a resource.

The daily life of a self-employed is by nature a stressful. Taking risks to invest, competition, dealing with conflicts and loss are some of the issues that confront the self-employed person. It gets worse when operating in cultures that are unfamiliar with others, especially if we cannot understand the intentions and behaviors of stakeholders. With regards to this, cultural intelligence has been found related to emotional intelligence (Crowne 2013; Earley and Mosakowski 2004; Lin, Chen, and Song 2012), which is further an important tool for resilience and adjustment (Houghton et al., 2012), thus essential in business situations. This increases the likelihood of succeeding in self-employment role. In the present study, only two the behavioral cultural aspect is examined. It is therefore hypothesized that:

*H3:* Behavioral cultural intelligence is positively related to subjective success in self-employment.

Moreover, the study examines how culture and cultural intelligence function together to impact subjective success in self-employment; and also whether their influences vary among countries. We presume that country specific socio-economic conditions can result into differences in how different personal cultural orientations and cultural intelligence impact on subjective success in self-employment. We further assume that interdependence and social inequality cultural orientations sensitize people to the peculiarities of each social contact. Hence they enhance one's cultural intelligence, and consequently ability to conduct business in a multi-ethnic context.

Whereas some scholars question the existence of a cognitive capability called cultural intelligence, there is agreement that culture has influences on development of such individual abilities. Sternberg (2004) provides a framework in which intelligence is culturally determined; specifically, that culture does not only influences development of intelligence, but also the way intelligence is conceptualized and its significance. There are a few studies that have attempted to measure the effect of culture on different intelligence constructs. These few studies however demonstrate that culture indeed has an influence on different forms of intelligence such as emotional (Gunkel et al., 2014) and cultural intelligence (Chao et al., 2017). We therefore would like to test an exploratory assumption that cultural orientations are related to cultural intelligence. Given that culture impacts both entrepreneurial success and cultural intelligence, we would like to hypothesize that the effect of cultural orientations on success in self-employment is partly mediated by cultural intelligence. Cultural intelligence is a competence that increases the capability of the entrepreneur to deal with clients of different cultural and ethnic backgrounds. In line with the assumption that social competences are related to entrepreneurial success (Baron and Markman, 2003), we particularly propose that cultural intelligence is important for interactional tasks of the entrepreneur, which translates into performance and consequently improving subjective success.

*H4a.* Both interdependence and social inequality cultural orientations are positively related to cultural intelligence.

*H4b.* Cultural intelligence mediates the effect of personal of both interdependence and social inequality cultural orientations on subjective success in self-employment is mediated by cultural intelligence

Moreover, (Frederking, 2004) observed that the role of culture in business varies among societies. That is, in some but not all societies, cultural values and norms are extended to economic activities. Nonetheless, even in societies where cultural values are separated from the business process, the general cultural effect on character extends to entrepreneurial behavior. This includes the perception of barriers, support mechanisms, and personal competencies to engage in entrepreneurial activities (Migliore, 2011; Shinnar et al., 2012); development and usage of social capital (Chand and Ghorbani, 2011). In addition, values are closely linked to social and political circumstances (McGrath et al., 1992); which have implications for self-employment (see: Gindling and Newhouse 2014). It is therefore expected that the direct effects of personal cultural values on subjective success self-employment to vary among countries given the differences in social, political and economic conditions; which factors may also affect the degree to which cultural values are applied to economic behavior. Keeping note that cultural intelligence is a competence that particularly enables individuals to interact with people from other cultural backgrounds (Earley, 2002; Earley and Mosakowski, 2004; Soon and Linn, 2015), it is also expected that the indirect effects of personal cultural orientation on subjective success via behavioral cultural intelligence also differ among countries, depending on the level of multiculturalism or multi-ethnicity of the business context. Most communities in East Africa are multiethnic and metalinguistic. For example, Uganda have over 40 native ethnic groups (Naluwoza, 2017) moreover, business hubs tend to have a greater collection of most ethnicities and languages. On the other hand, the comparison country, Germany is more homogeneous in terms of culture and language. It is therefore hypothesized that:

*H5a.* The direct effects of interdependence and social inequality cultural orientations on subjective success in self-employment are higher for East Africa than for Germany

*H5b.* The indirect effects of interdependence and social inequality cultural orientations on subjective success in self-employment via cultural intelligence are higher for East Africa than for Germany.

## Methods

### *Participants*

Study participants included 367 self-employed individuals from East Africa (Uganda and Kenya) and Germany. The East African sample were recruited from the provinces of Kisumu and Kisii in Kenya; and the Central region of Uganda through different business forums. This resulted into 283 (143 females, 140 males) fully completed surveys in a period of four months. Germany participants were recruited through online forums for self-employed (in the Marburg-Biedenkopf area). This resulted into 84 responses (44 females, 40 males). Overall, participants' ages ranged from 17 to 79 years, but majority were young ( $M = 26.66$ ,  $SD = 8.04$ ) and had obtained at least a bachelor degree (50.3%).

### *Measures*

The *Personal Cultural Orientations* (PCO) scale (Sharma, 2010) was used. The PCO is a 40-item instrument measured on a 7-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree). In the present study, only 8 items relating to interdependence and social inequality orientations were used. The reliability (Cronbach  $\alpha$ ) for the sub-scales were .88 for interdependence and .80 for social inequality. Sample items are: I feel good when I cooperate with my group members (interdependence), and Unequal treatment for different people is an acceptable way of life for me (social inequality).

*Cultural Intelligence*: Van Dyne et al. (2012) Expanded Cultural Intelligence Scale (E-CQS) was adopted. The E-CQS is an expanded version of the Cultural Intelligence Scale (CQS) (Ang et al., 2007). The instrument comprises of 37 items measured on a 7-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree). The scale focuses on eleven (11) sub-dimensions and four (4) dimensions of cultural intelligence; cognitive, meta-cognitive, motivation and behavioral. In the present study, we only measured the behavioral dimension (9 items), and observed high reliability,  $\alpha$  of .94. A sample item is "I change how I make requests of others depending on their cultural background".

*Subjective Success in Self-employment*: The economic perspectives promote the objective measures of success, that is, in terms financial performance and other objectively verifiable economic parameters. On the other hand, there are increasing recognition that subjective measures that may not necessarily be economic also matter (Fisher et al., 2014). We therefore

focus on the subjective measures, and specifically, job satisfaction. Job satisfaction is recognized as an effective measure of subjective success, and is rather a psychological than financial or material (objective) outcome of entrepreneurship (Dijkhuizen, Gorgievski, van Veldhoven, & Schalk, 2016). In the present study, we adopted 11 items from the revised and shortened Minnesota Job Satisfaction questionnaire (see items in Hirschfeld, 2000) measured on a 5-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree); which yielded a good Cronbach's alpha coefficient of .86. A sample item is: I am satisfied with the feeling of accomplishment I get from the job.

### *2.1. Statistical Analyses*

Regarding cultural orientations, individual level analyses were used in line with our focus on personal cultural orientations as proposed by (Sharma, 2010) in his reconceptualization of Hofstede dimensions of national culture (Hofstede, Hofstede, & Minkov, 1991; Hofstede, 1984). We also examined the differences between the countries regarding the impact of personal cultural orientations on cultural intelligence and success. Hence a moderated mediation regression analysis was applied using Process macro for SPSS (Hayes, 2013) Model 8. The model tests for direct, indirect, moderated direct and moderated indirect effects concurrently in one regression model. Sample bootstrapping (bootstraps set at 5,000) was also applied, which is considered an appropriate approach to making inferences about indirect and moderated effects (Hayes, 2013). In all the models, we controlled for the effects of age, sex, and level of education.

## **Results**

The means, standard deviations, Cronbach's alpha ( $\alpha$ ) coefficients and correlations of control and study variables are presented in Table 1. Results relating to all hypotheses are presented in Table 2. Given the strong associations between the study variables, multicollinearity diagnostics were made. Results showed that the highest Variance Inflation Factor (VIF) was 2.22 and tolerance of .45; which are within acceptable ranges of <10 for VIF and > .20 for tolerance (Field, 2009).

*Insert Table 1 around here*

The results in Table 2 show that both cultural orientations; social inequality ( $B = .40, p < .001$ ) and interdependence ( $B = .29, p < .01$ ), related positively to entrepreneurial subjective

success (measured in terms of job satisfaction), thus *H1* and *H2* are supported. Similarly, interdependence orientation ( $B = .72, p < .001$ ) and social inequality orientation ( $B = .52, p < .001$ ) were positively related to behavioral cultural intelligence, supporting *H4a*. *H3* predicts that behavioral cultural intelligence is positively related to subjective success. As shown in both models A and B in Table 2, this hypothesis is supported.

*Insert Table 2 around here*

*Insert Figures 1, 2, and 3 around here*

Hypotheses 4b, 5a and 5b regard the indirect effects as well as the conditional direct and conditional indirect effects of personal cultural orientations on subjective success in self-employment through cultural intelligence, contingent on country, in a manner that indirect effects of success will be positive and higher for self-employed from East Africa given the multiethnic business environment. Two regression models were calculated, one for each personal cultural orientation. Results in Table 2 (model A) show significant interactive effects of interdependence orientation and country on behavioral cultural intelligence ( $B = -.67, p < .001$ ) as well as on subjective success ( $B = -.31, p < .01$ ). These effects are visualized in Figures 2 and 3, which show that both behavioral cultural intelligence and subjective success were higher for East African participants and were highest at high level of interdependence orientation. On the other hand, behavioral cultural intelligence and subjective success were lower and almost the same across levels of interdependence orientation for the German participants. Results in Table 2 (model B) further show significant interactive effects of social inequality orientation and country on behavioral cultural intelligence ( $B = -.69, p < .001$ ) and subjective success ( $B = -.56, p < .001$ ). The conditional direct and conditional indirect effect show that interactive effects were positive and significant for the East African sample, but negative and rather marginal for the German Sample. For East African sample, behavioral cultural intelligence and subjective success were highest at high levels of social inequality orientation (see Figures 5 and 6). These conditional effects provide support for *H5a* and *H5b*.

*Insert Figures 4, 5 and 6 around here*

Process macro model 8 computes an index of moderated mediation, which represents the slope of the line relating the indirect effects to the conditioning variable (Hayes, 2015). The

index of moderated mediation was significant for model A (index =  $-.20$ ,  $CI = -.36$  to  $-.06$ ). Hence, effects of interdependence orientation on subjective success were mediated by cultural intelligence; and moderated by country. Conditional indirect effects for this model reveal that mediation occurred for both East African sample ( $B = .33$ ,  $CI = .21$  to  $.45$ ) and German sample ( $B = .08$ ,  $CI = .02$  to  $.16$ ). Regarding effects of social inequality orientation on subjective success through behavioral cultural orientation and conditioned by country; the index of moderated mediation was significant (index =  $-.24$ ,  $CI = -.35$  to  $-.16$ ). However, the conditional indirect effects were only significant for the East African sample ( $B = .23$ ,  $CI = .18$  to  $.30$ ). Therefore, mediation did not occur for the German sample. These findings further lend support to *H4*, *H5a*, and *H5b* and the general moderated mediation model.

## Discussion

The present study was aimed at examining the association between personal cultural orientations, behavioral cultural intelligence and subjective success in self-employment. The study particularly focuses on interdependence and social inequality orientations; which are likely to play a big role in the social competence of entrepreneurs, in line with social competence theory (Baron and Markman 2000; 2003). This is because these orientations affect the quality of social interactions of the entrepreneur, therefore directly and indirectly affecting success in entrepreneurial activities.

In this direction, Results of *H4a* reveal that both interdependence and social inequality orientations are positively related to behavioral cultural intelligence. In contrast to independence, interdependence cultural orientation regards an individual's tendency to value interpersonal reliance and collective action. Similarly, social inequality (in contrast to power) orientation concerns acceptance of social differences (Sharma, 2010). Consequently, these orientations sensitize individuals to differences between people as well as how to relate with others. In a multiethnic context where individuals value differences, yet relying on each other, individuals are likely to grow up appreciating cultural differences and yet facilitating the development of ability to relate with people from various cultural and social backgrounds.

Results concerning *H1*, *H2*, and *H3*, show that interdependence, social inequality and cultural intelligence were positively related to subjective success in self-employment. The sense of this can be derived from the study context with specific reference to the East African

participants. Particularly for less developed countries, individuals are likely to assess their success in self-employment mostly in terms of how their ventures are enabling them to achieve their life goals and responsibilities. Some of such goals and responsibilities are premised on interdependence values; for example, the need to meet the survival needs of the family and providing employment for family members. In this direction, coupled with high unemployment rates, self-employment may be motivated by need to ensure sustained household income, rather than accumulation of wealth (Eijdenberg, 2016), which then provides the basis for evaluating their success. Therefore, although the competitive and winning mentality is useful for objective success (Giazitzoglu and Down, 2017; Hamilton, 2000), the ability to meet social responsibilities and other non-economic goals are essential in achieving subjective success. In addition, our results also support previous findings that collectivism is also important for entrepreneurial development in some contexts (for example, Zeffane 2014). They also provide support for the claim that interdependence or collective action is important to entrepreneurship during the implementation phases (Rauch et al., 2013), hence essential for success.

Concerning the mediation effects, results of *H4b* reveal that the effects of interdependence and social inequality orientations on subjective success (job satisfaction) in self-employment are mediated by behavioral cultural intelligence. From this finding, it is posited therefore that behavioral cultural intelligence is one of the important social competences that are resourceful for successful self-employment, especially in making individual-level cultural values relevant to business situations. Effects of personal cultural orientations on subjective success in self-employment are enhanced by or implemented through cultural intelligence. However, on a general level, literature shows that some cultural orientations increase cultural intelligence, while others reduce it (Chao et al., 2017). We observe that the orientations measured in this study, interdependence and social inequality, are positively correlated to behavioral cultural intelligence. This aspect of cultural intelligence is directly relevant to behavior during business transacting. Existing research show that motivational cultural intelligence, is for example, associated with amount of cultural sales (Chen et al., 2012) observation that a person's motivational cultural intelligence influences cultural sales. An individual with higher cultural intelligence is more likely to have higher sales to people of different cultures or from different groups. In the contemporary globalized business environment, this might be an important contributor to increasing business sales, hence enhancing chances of success; and the overall job

satisfaction of the self-employed. These present study shows that this also important to multiethnic, multi-lingual business contexts, in comparison to doing business in relatively culturally homogenous contexts.

The relevance of a particular cultural orientation to success in self-employment or other business related activities is further dependent on the economic and social context. The results of the moderated mediation revealed that both direct and indirect effects of cultural orientations on success vary among countries (*H5a* and *H5b*). The study findings reveal interdependence and social inequality orientations relate positively to subjective success in self-employment in East Africa. But this was not true for Germany, where people tend to value independence more than interdependence (Hofstede et al., 2010). Similarly, the indirect effects were higher for the East African sample than for the German sample; which is also an indication of wide social class gaps in the East African communities compared to Germany. These results justify the assumption that differences in social class are important for entrepreneurship. Whereas literature shows that social class is beneficial only for those in the higher socio-economic group (Anderson and Miller, 2003) in a sense that their high class networks and access to capital enables them to succeed. On the other hand, in a world marked by high corruption and inequality in job distributions, those in the disadvantaged group view self-employment as a feasible alternative to obtaining meaningful employment, as well as an opportunity to improve their social status. This therefore explains the positive relationship between social inequality orientation and subjective success in self-employment in the East African sample.

Our findings also re-affirm the importance of social competence in entrepreneurial success (Baron and Markman 2000). Relational competences are particularly essential for managing small-scale enterprises in developing countries (Baluku et al., 2016b) but also in multiethnic contexts. The quality of relations of the entrepreneur with significant others affects the ability to obtain funding, credit facilities, participating in entrepreneurial promotion forums, and capital resources. Previous evidence for example shows that some self-employed start or sustain businesses with resources provided by friends and family members (Baluku et al., 2016a; Orobia et al., 2011). These demonstrate the value of interdependence in self-employment in less developed countries.

Moreover, business transactions quite often occur in a social context (Gedajlovic et al., 2013). This context involves the self-employed person interacting with several people including

suppliers, customers, employees, and investors. The quality of relations with each of these contributes directly or indirectly to success. In low socio-economic communities, the quality of social relations with stakeholders play extra important roles, such as obtaining interest-free (or low-interest) loans and donations for starting-up a self-employment business. In the context of selling, the seller-buyer relationship is crucial to the success of the business (Villena et al., 2011). In a multi-ethnic context such as that of Uganda and Kenya, relational capital is partly constituted by ability to successfully interact with people from other ethnic groups, thus highlighting the importance of cultural intelligence. The principal contribution of social cultural competencies such as behavioral cultural intelligence is that it enables the business attract and retain customers, suppliers, and network with people from other groups; which is facilitated the ability to interact effectively with individuals from other ethnic and linguistic backgrounds.

## **Conclusion**

To test the hypotheses of this paper, survey data was collected from 367 participants from East Africa and Germany, who were mostly young individuals. Job satisfaction is used as a proxy measure of subjective success in self-employment. The assumption is that successful entrepreneurs show higher job satisfaction compared than less successful ones.

Self-employment is increasingly becoming a popular form of employment. Whereas for the old people, self-employment is a way of remaining productive and earning money after retirement; for the young ones, it is a feasible form of employment, hence a path to successful career life. With the predictions of increasing unemployment, it is imperative that self-employed are supported to succeed and remain in self-employment. This is not only noble in sense that it increases entrepreneurship and economic development, but also can attract more individuals to this career path. Hence, the present study has practical implications for promotion of successful entrepreneurship in less developed countries. It is posited that developing the relational resources, including cultural values that enhance cooperation in business, are critical to entrepreneurial success in less developed and collectivistic cultures.

Theoretically, the present study builds on a growing body of knowledge about the role of culture in entrepreneurial success to reaffirm that interdependence and social inequality cultural orientations are not necessary bad for entrepreneurship (Zeffane, 2014). Rather, they are means of developing relational capital and developing interpersonal and cultural competences that in

turn increase the likelihood of entrepreneurial success, in line with the conceptualization that social competences are critical to entrepreneurial success (Baron and Markman, 2003, 2000). In addition, the present study contributes to the call to focus beyond financial dimensions of entrepreneurial success (Rindova et al., 2009). Besides, entrepreneurs in less developed countries are likely to be by need for “basic personal wealth” (Eijdenberg, 2016) which relates to ability to generate adequate funds to finance day-to-day basic needs, rather than amassing wealth.

#### *Limitations and Directions for further Research*

The study has some shortcomings. Self-employment success was measured in terms of job satisfaction only. Whereas focus on subjective success has been advocated for, focusing on both objective and subjective success indicators is likely to generate more robust findings. Additionally, cultural orientations and cultural intelligence impact on entrepreneurs’ behaviors (Abdul Malek & Budhwar, 2013; Carranza & Egri, 2010; Krueger et al., 2013; Mueller & Thomas, 2001) that also have connotations for objective outcomes of self-employment. It is also probable that cultural and cultural intelligence could have more impact on objective than subjective success. Future research can further investigate the effects of personal cultural orientations and cultural intelligence on both objective and subjective success. It could be essential to study different aspects of success including entrepreneurial performance, firm growth, and profitability. Moreover, segregating the effects of each factor of cultural intelligence might contribute to the literature and important for self-employment support programs.

Measurements were also based on self-reports, thereby participants are prone to inflate ratings of their perceived success. Moreover, the study was cross-sectional focusing on young self-employed individuals in East African and Germany. The two countries differ significantly in the development level, and therefore also differ in entrepreneurship levels; including the nature of entrepreneurship (opportunistic versus necessity entrepreneurship). These difference could be contributing to the observed differences between East African and German samples. The sample also comprised of mostly young individuals. Therefore, caution has to be taken when generalizing results of the present study to population of older self-employed persons, and to the self-employed in other countries.

One question for future research arising from our findings is whether the so-called entrepreneurial culture is universal, or is defined by the development context. Extant literature on entrepreneurial culture emphasizes cultural dimensions such as masculinity, individualism and

long term orientation (Hamilton, 2000; Hamilton, 2013; Hofstede & Minkov, 2010) highlighting the motivations for entrepreneurial action to include the need for accumulating wealth and self-centeredness. Results of the present study, however, suggest that interdependence, appreciation of social inequalities in society and the ability to interact with people from different ethnic backgrounds are important as well. In the context of low income countries with limited development opportunities, and corruption in recruitment process, individuals in low social class may lose hope in finding salaried employment; hence self-employment is the most available opportunity to earn income and improve one's social status. Achieving these are important for their job satisfaction or their evaluation of subjective success.

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**Tables**

**Table 1.** Descriptive statistics and variable inter-correlations

Variables	M	SD	1	2	3	4	5	6	7	8
1. Country (East Africa = 0, Germany = 1)	.23	.42	1							
2. Age	26.66	8.04	.64 <sup>***</sup>	1						
3. Sex (Female = 0, Male = 1)	.50	.50	.01	.10	1					
4. Education (no degree = 0, degree = 1)	.50	.50	.11 <sup>*</sup>	.21 <sup>***</sup>	.17 <sup>**</sup>	1				
5. Interdependence	5.38	1.39	-.71 <sup>***</sup>	-.56 <sup>***</sup>	-.02	-.12 <sup>*</sup>	<b>.88</b>			
6. Social inequality	4.80	1.33	-.67 <sup>***</sup>	-.42 <sup>***</sup>	-.05	-.19 <sup>***</sup>	.30 <sup>***</sup>	<b>.80</b>		
7. Behavioral cultural intelligence	5.50	1.00	-.40 <sup>***</sup>	-.32 <sup>***</sup>	-.04	.01	.59 <sup>***</sup>	.39 <sup>***</sup>	<b>.94</b>	
8. Subjective success (job satisfaction)	3.96	.88	.02	.05	-.14 <sup>**</sup>	-.01	.49 <sup>***</sup>	.47 <sup>***</sup>	.62 <sup>***</sup>	<b>.86</b>

*Note:*

*N* = 367

\* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001

*α* is represented by bolded coefficients

**Table 2.** Moderated mediation analyses of effect of cultural orientations on subjective success (job satisfaction) through behavioral cultural intelligence

Variables	A. Effects of interdependence orientation				B. Effects of social inequality orientation			
	Behavioral CQ		Subjective success (JS)		Behavioral CQ		Subjective success (JS)	
	B	SE	B	SE	B	SE	B	SE
Constant	5.34***	.29	1.48**	.17	5.37***	.32	1.46***	.35
Age	-.01	.01	.02	.01	-.01	.01	.02	.01
Sex	-.03	.08	-.20**	.07	.11	.08	-.07	.07
Education	.16*	.08	-.06	.07	.26**	.09	.03	.07
Country	-.04	.19	.52***	.14	-.53*	.26	.40*	.17
Interdependence	.72***	.04	.29**	.08				
Interdependence × Country	-.67***	.09	-.31**	.11				
Social inequality					.52***	.04	.40***	.05
Social inequality × Country					-.69***	.10	-.56***	.08
Behavioral CQ			.38***	.08			.35***	.05
R <sup>2</sup>	.56		.44		.41		.54	
F	106.21***		26.12***		57.64***		37.18***	
<u>Conditional direct effects</u>								
Levels of the moderator	Effect	Boot SE	LLCI	ULCI	Effect	Boot SE	LLCI	ULCI
East Africa	.36	.10	.16	.56	.52	.06	.40	.65
Germany	.06	.07	-.08	.19	-.03	.05	-.13	.08
<u>Conditional indirect effects</u>								
Levels of the moderator	Effect	Boot SE	LLCI	ULCI	Effect	Boot SE	LLCI	ULCI
East Africa	.33	.06	.21	.45	.23	.03	.18	.30
Germany	.08	.04	.02	.16	-.01	.03	-.07	.06
<u>Index of moderated mediation</u>								
Mediator	Index	Boot SE	LLCI	ULCI	Index	Boot SE	LLCI	ULCI
Behavioral CQ	-.20	.08	-.36	-.06	-.24	.05	-.35	-.16

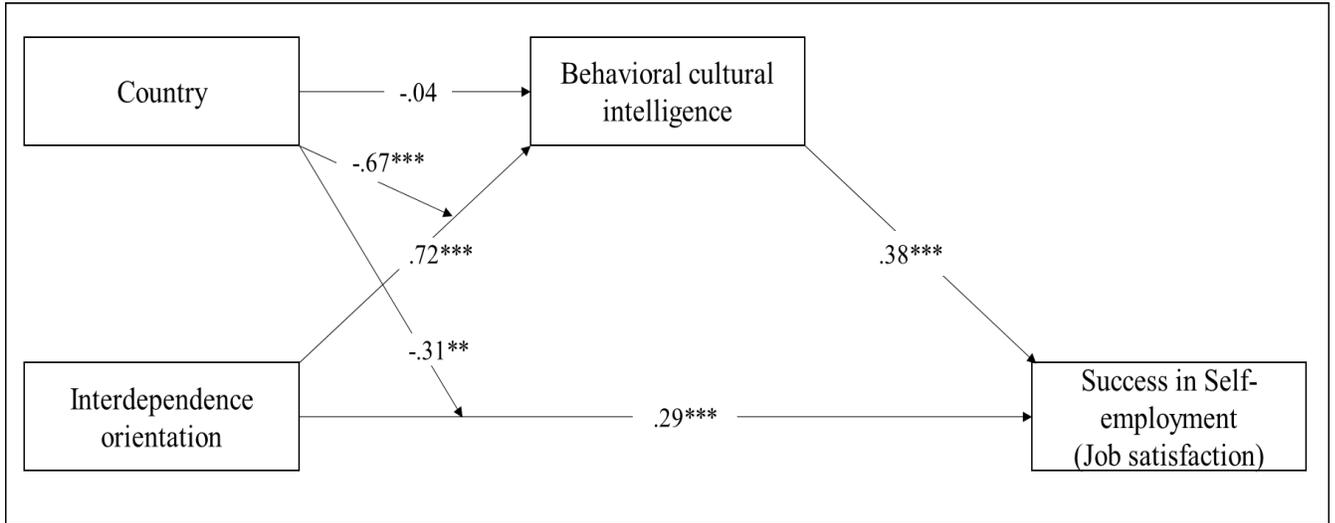
Note:

N = 367

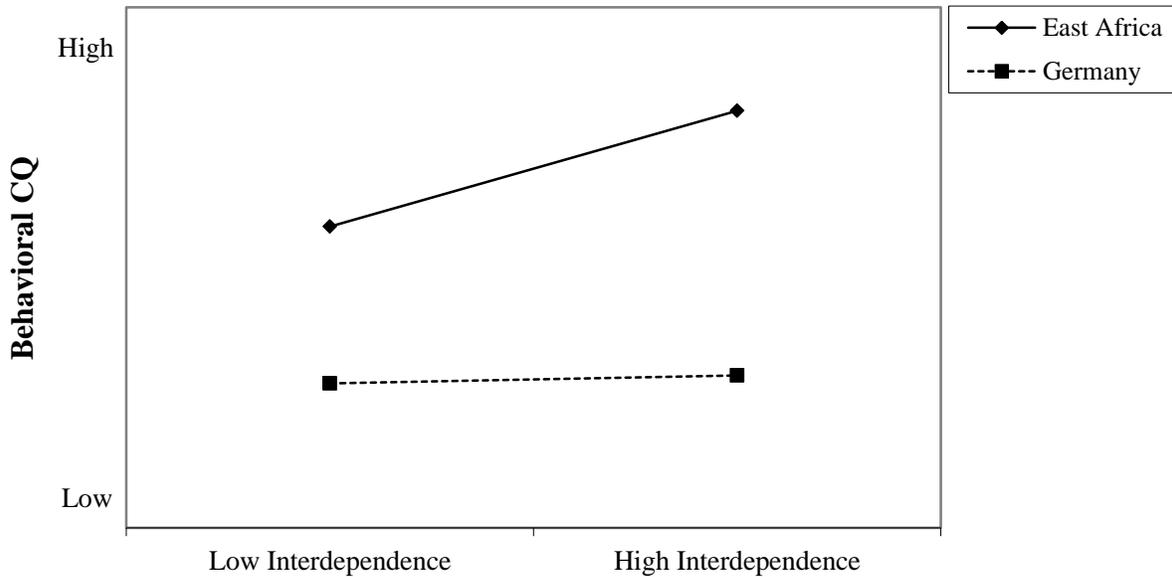
\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

CQ = cultural intelligence, A = Model A, B = Model B

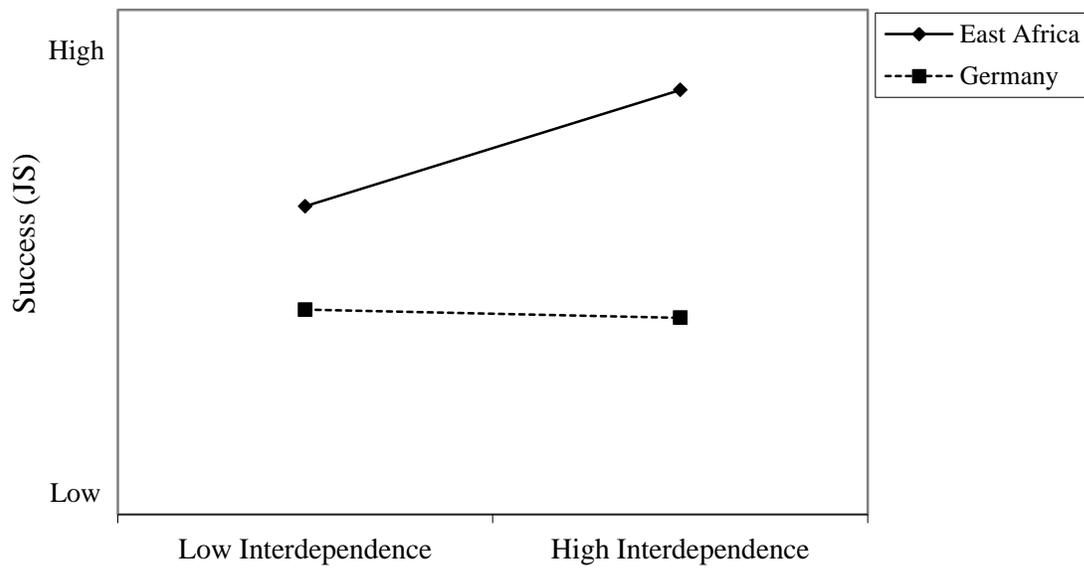
**Figures**



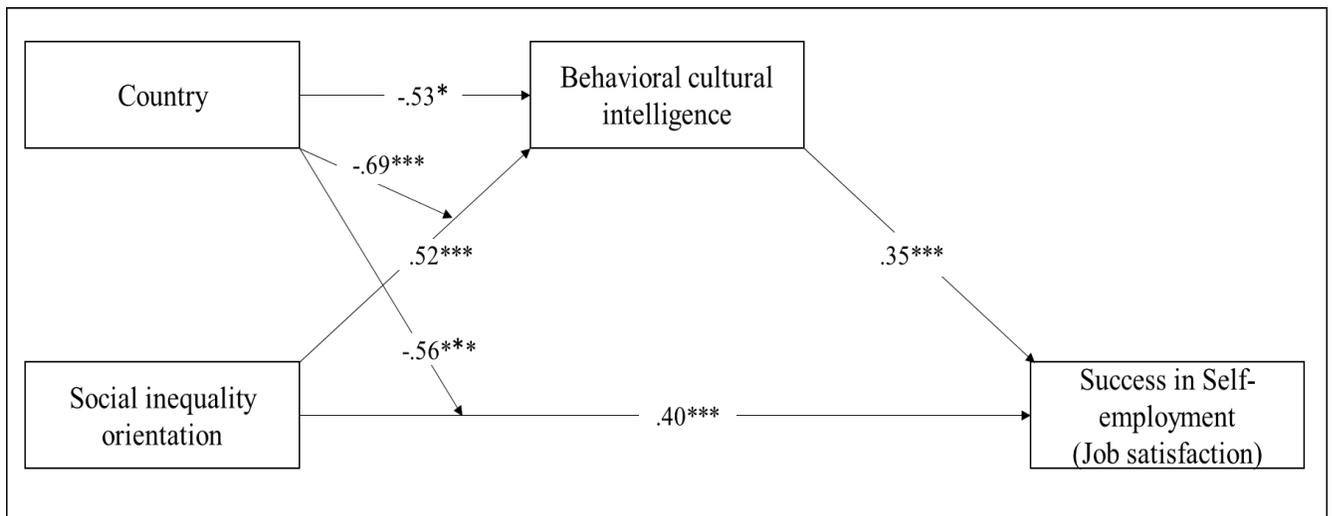
**Figure 1.** Moderated mediation effects of interdependence orientation on success through behavioral cultural intelligence



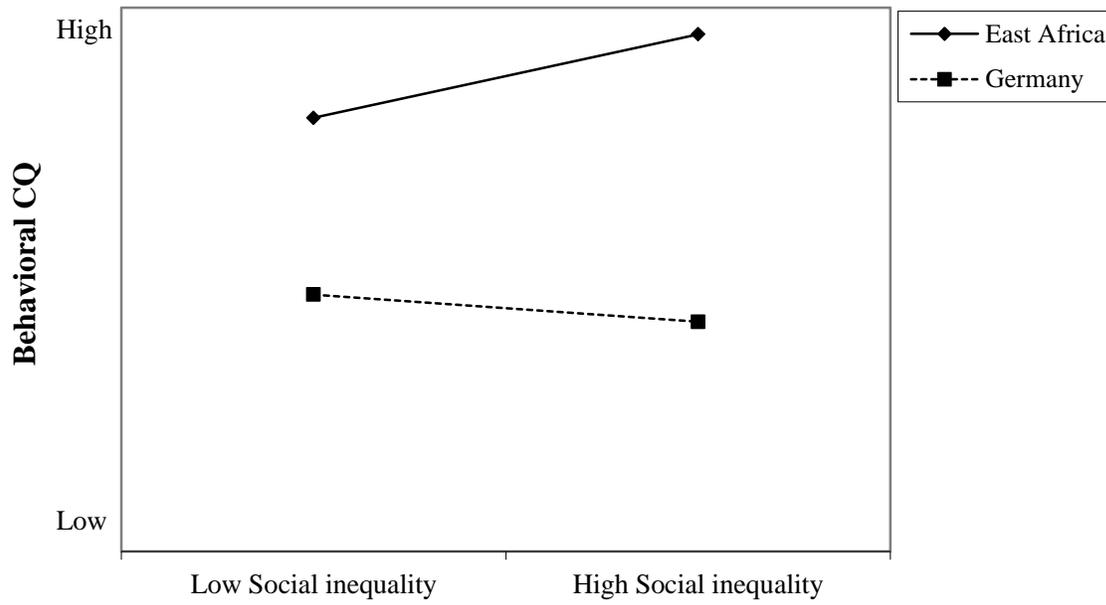
**Figure 2.** Effects of interdependence orientation on behavioral cultural intelligence



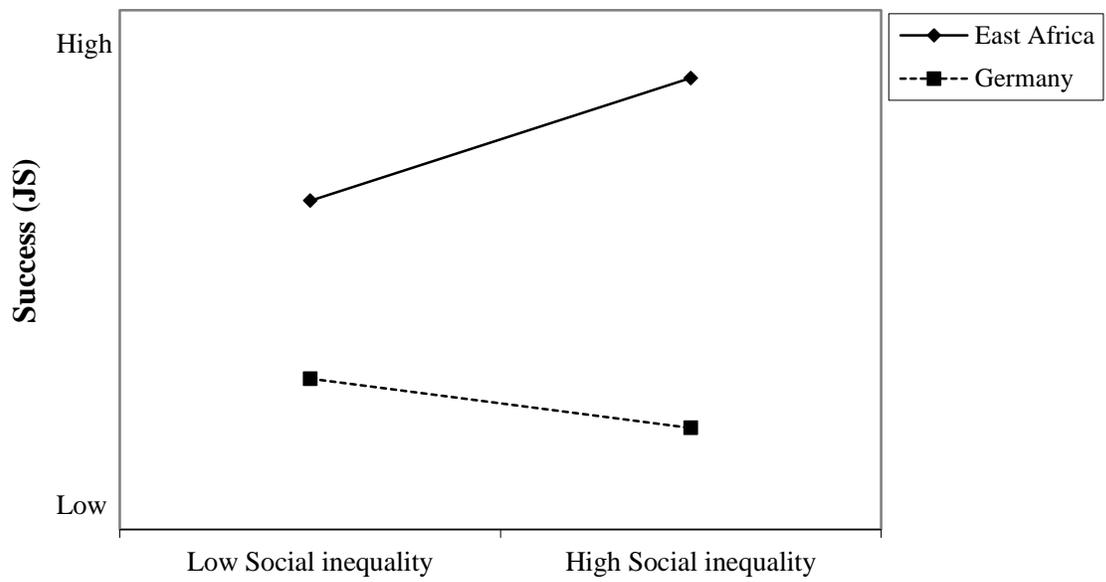
**Figure 3.** Effects of interdependence orientation on subjective success (job satisfaction)



**Figure 4.** Moderated mediation effects of interdependence orientation on success through behavioral cultural intelligence



**Figure 5.** Effects of social inequality orientation on behavioral cultural intelligence



**Figure 6.** Effects of social inequality orientation on subjective success (job satisfaction)

**Manuscript #8**

**Positive Mindset and Entrepreneurial Outcomes: The Magical Contributions of  
Psychological Resources and Autonomy**

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## **Abstract**

This paper utilizes the self-determination theory and the psychological capital literature to examine the impact of psychological capital and autonomy on a number of entrepreneurial outcomes including performance, firm growth, income, entrepreneurs' satisfaction, meaning in life, and commitment to entrepreneurial career roles. The results from three independent studies reported in this paper support the proposition that a positive mindset (consisting of psychological resources) and a feeling of autonomy are essential for entrepreneurial success. The results have implications for entrepreneurship training and support interventions. The implications for researchers are also discussed.

## **Keywords**

Autonomy; Entrepreneurial outcomes; entrepreneurial success; psychological capital; psychological resources; self-determination theory.

## **Highlights**

- Optimism impacts entrepreneurial performance, firm growth, and entrepreneur's satisfaction through efficacy beliefs (Study 1)
- Psychological capital and autonomy are positively related to entrepreneurial outcomes including entrepreneur's satisfaction and commitment to entrepreneurial roles (Study 2) as well as meaning in life (Study 3)
- Interaction of psychological capital and autonomy has significant impact on entrepreneurs' satisfaction and commitment among Ugandan sample (Study 2) and income among the German sample (Study 3).

## 1. Introduction

It is not uncommon in Uganda for business owners to apply a sort of magical or spiritual practice/ fetish to protect and bless their businesses. The logic of such actions is that businesses do not succeed and survive for long solely based on economic conditions and the personal factors of the entrepreneur or on mere luck but do so more on divine powers. Such practices may be common among people engaged in business in several places on the globe. However, the study by Gindling and Newhouse (2014) in 74 developing countries indicated that entrepreneurs failed shared similar characteristics. Thus, success is not due to sheer magic. We argue that entrepreneur success instead depends on psychological resources or states that entrepreneurs invest in their work.

Using three independent studies, we argue that the magical powers of successful entrepreneurs lie in their positive psychological states (psychological capital) and self-determination (autonomy), what we are calling a positive mindset. Study 1 highlights the role of the psychological aspects of efficacy beliefs and optimism on entrepreneurial performance, growth and entrepreneur's satisfaction in Uganda. Study 2 shows that psychological capital and autonomy interact to achieve higher satisfaction and well-being among the self-employed in Uganda. While Study three has the same focus as study 2, it also focuses on the impact of autonomy and psychological capital on the income of self-employed individuals in Germany. Psychological capital has been highlighted as a positive force related to numerous work outcomes such as performance, satisfaction (e.g. Luthans, Avolio, Avey, & Norman, 2007), wellbeing among workers (e.g. Avey, Luthans, & Jensen, 2009; Cole, Daly, & Mak, 2009) and several work attitudes (e.g. Avey, Luthans, & Youssef, 2010; Joo, Lin, & Kim, 2016; Larson & Luthans, 2006). Conversely, autonomy is presented in the Self-Determination Theory (SDT) as a psychological need; however, psychological needs are conceptualized as drivers of autonomous work motivation, volition and engagement, thus resulting in an enhanced performance and persistence (Deci & Ryan, 2000; Ryan & Deci, 2000).

Although these concepts are widely researched in relation to employee behavior and outcomes, they are yet to garner a similar level of focus in relation to entrepreneurial outcomes. The research on entrepreneurial attitudes and culture has emphasized the value of autonomy or independence, particularly as a motivator of entrepreneurship intentions and entry. Another

cluster of research has studied autonomy as the outcome of self-employment, arguing that autonomy is among the greatest benefits of self-employment (e.g., Benz & Frey, 2008), which is in accordance with SDT. It is argued that autonomy is the reason why the self-employed report higher satisfaction and wellbeing than their counterparts in wage-employment (Berglund et al., 2015; Stam et al., 2016), given that freedom at work is what employees seek (Otto et al., 2013). Consistent with SDT, we claim that the autonomy experienced in self-employment is essential for entrepreneurial outcomes such as job satisfaction and persistence or commitment to entrepreneurial roles as well as the psychological wellbeing of entrepreneurs (see, Studies 2 and 3). We further argue that the achievement of autonomy is an important precondition for the realization of other entrepreneurial outcomes.

Concerning psychological capital, there is increasing focus on the role of psychological resources in the entrepreneurial process and success (e.g., Adomako, Danso, Uddin, & Ofori-Damoah, 2016; Baron, Franklin, & Hmieleski, 2016; Dawson, 2017). Self-efficacy and optimism are the specific factors of psychological capital that play positive roles in facilitating entrepreneurial entry and performance of entrepreneurial activities. Beyond facilitating entry and performance of entrepreneurial tasks, psychological capital has generally been linked to entrepreneurial success (Baluku et al., 2016) and lower stress among entrepreneurs (Baron et al., 2016). The latter study specifically clarifies that psychological capital is important for the psychological health of entrepreneurs.

Beyond these studies, there are reasons for positing that psychological capital relates to several specific subjective and objective outcomes of engaging in entrepreneurial activities. Psychological capital consists of four resources: self-efficacy or confidence, hope, resilience, and optimism (Luthans, Avolio, Avey, et al., 2007; Luthans, Luthans, & Luthans, 2004; Page & Donohue, 2004). In the theory of planned behavior, self-efficacy is a factor in perceived behavior control (Ajzen, 2002, 1991), which is important in investment behavior. Similarly, optimism is an essential factor in investment decision making, and together with resilience and hope, are useful for coping with challenges involved in entrepreneurship (Baluku et al., 2016). These factors could foster performance and persistence or commitment to entrepreneurial activity (see, Studies 1 and 2). Moreover, when one has these resources, one is in a state of flow, indicating

alignment between personal and work goals (Luthans et al., 2004); thus, this is a likely antecedent of satisfaction and psychological wellbeing.

Therefore, we particularly argue, in our three studies comprising this paper, that both psychological capital and self-determination (i.e., autonomy) are related to entrepreneurial performance and entrepreneurs' satisfaction and psychological wellbeing (we particularly focus on meaning in life, in accordance with eudaimonic measures of wellbeing), consequently causing commitment to entrepreneurial career roles. We further suggest that these two factors relate to measures of objective success including income and entrepreneurial performance. Moreover, for some of these outcomes, it appears that the combination of both autonomy and psychological capital has a particularly high impact.

## **2. Literature Review and Hypothesis Development**

Entrepreneurial success has long been examined in economic terms, focusing on the economic performance aspects such as profitability and growth (Baron et al., 2016; Rindova et al., 2009), illuminating the dominance of economic theorization in the study of success. However, following calls to study entrepreneurial success beyond economic parameters, there is increased research on subjective success, and thus increased focus on psychological processes and factors that are associated with entrepreneurial success. The idea is that particular psychological attributes and states are important resources for entrepreneurial entry and persistence (Patel and Thatcher, 2014); these attributes can also be important for achieving success. In this research domain, three psychological factors have been widely investigated: personality (e.g., Caliendo & Kritikos, 2008; Zhao, Seibert, & Lumpkin, 2010), cognition (e.g., Haynie, Shepherd, & Mosakowski, 2010; Keith, Unger, Rauch, & Frese, 2016) and human capital (e.g., Baptista, Karaöz, & Mendonça, 2014; Bates, 1990; Davidsson & Honig, 2003; Unger, Rauch, Frese, & Rosenbusch, 2011).

Studies on the positive thinking, behavior and wellbeing of entrepreneurs are also increasingly applying psychological capital conceptualizations to the study of entrepreneurship outcomes. In the present study, we argue that psychological capital impacts on several outcomes of entrepreneurship beyond wellbeing concepts. In addition, we argue that since autonomy (self-determination) is an important growth need in the workplace and is primarily satisfied in entrepreneurial roles, both psychological capital and autonomy in entrepreneurship explains a

large variance in several aspects of subjective and objective outcomes. Both autonomy and psychological capital are described in the literature as concepts concerned with psychological growth and thriving (Luthans, Norman, Avolio, & Avey, 2008; Ryan & Deci, 2000); hence, these are expected to have similar effects on entrepreneurial behavior and outcomes.

From SDT, the pursuit of psychological growth and flourishing underlies the autonomous or intrinsic motivation for individuals to devotedly engage and persist in behavior or activities (Ryan & Deci, 2000). Similarly, psychological capital constructs (efficacy, hope, resiliency and optimism) have a common characteristic, which is the motivation to achieve goals (Luthans, Avolio, Avey, et al., 2007). The end outcomes of these motivational forces are superior performance, commitment, and wellbeing (which also includes notions of satisfaction in the subjective measures). We examine the relations of psychological capital and autonomy to these objective and subjective outcomes in entrepreneurial work. The conceptual framework in Figure 1 highlights our assumptions.

*Insert Figure 1 here*

## **2.1. The Role of Psychological Capital in Entrepreneurial Success**

Luthans and Youssef-Morgan (2017) refer to psychological capital as the “HERO within”, highlighting what individuals are likely to achieve with, as opposed to what they likely not to achieve without positive psychological resources. A connotation for the four resources constituting psychological capital are the following: Hope, Efficacy, Resiliency, and Optimism; furthermore, the expression “HERO within” portrays the critical contribution of psychological capital. In business situations, psychological capital is likely to contribute to success more than other forms of input such as startup funds and human capital (Baluku et al., 2016). The value of these first order, state-like, positive psychological resources on attitudes, behavior, performance and wellbeing (Luthans & Youssef-Morgan, 2017) makes psychological capital a robust resource not only for employees but also for individuals in entrepreneurial roles.

Psychological capital is rooted in positive psychology, particularly positive organizational behavior, a field that is described to concern itself with the positive psychological capacities necessary for improved performance in the workplace (Luthans, 2002). In this direction, psychological capital is constituted by four psychological resources that are conceptualized to be interactive and synergistic (Luthans & Youssef-Morgan, 2017). Therefore,

the constructs can be measured separately or as a single construct. However, the proponents appear to argue for a unified assessment rather than focusing on components in isolation (Luthans & Youssef-Morgan, 2017; Luthans, Youssef-Morgan, & Avolio, 2015) based on the idea of resource caravans (Stevan E Hobfoll, 2011; Stevan E. Hobfoll, 2011). It is on the basis of this idea that, when combined, these resources enable individuals to maintain focus and control in pursuing goals; this psychological capital has been labeled the “HERO within” (Luthans & Youssef-Morgan, 2017). Accordingly, psychological resources such as esteem, efficacy and optimism tend to be highly correlated and are observed together (Stevan E Hobfoll, 2011); however, they also tend to relate at the same level to performance indicator. In addition, the combination occasionally has a higher relationship than when each construct is considered separately (Luthans, Avolio, Avey, et al., 2007). Hence, we predominantly use psychological capital as a unified concept. However, Study 1 is based on data that only measured efficacy beliefs and optimism aspects.

For over a decade, psychological capital has been the center of focus in positive organizational psychology research. These efforts have indicated that psychological capital is related to numerous critical work outcomes including performance, job satisfaction, organizational commitment, engagement, and wellbeing (Avey, Reichard, Luthans, & Mhatre, 2011; Baron et al., 2016; Joo et al., 2016; Luthans et al., 2007; Luthans & Youssef-Morgan, 2017; Newman, Ucbasaran, Zhu, & Hirst, 2014). Conversely, psychological capital is negatively related to negative workplace attitudes and behaviors as well as stress (Avey et al., 2011; Baron et al., 2016). Luthans et al. (2007) describe a mechanism through which positive psychological resources work together leading to higher performance, satisfaction, and wellbeing. The researchers note that both optimism and self-efficacy enhance motivation for the task or goal, while efficacy, resilience and hope enable individuals to rebound from adversity at work, as well as provides the confidence to persist in pursuance of goals.

The “self-efficacy” resource is also known as the confidence that inspires individuals to achieve in challenging tasks or goals or confront the challenges of running a business (Boyd & Vozikis, 1994; Luthans & Youssef, 2007). This resource is important at the different stages of enterprise development, including the development of entrepreneurial intentions, recognizing opportunities and harnessing resources required for exploiting investment opportunities (Boyd

and Vozikis, 1994; Culbertson et al., 2011; Sequeira et al., 2007). Regarding the “optimism” resource, it is conceptualized as a confidence for positive returns; this confidence motivates action, commitment and persistence (Luthans, Avolio, Avey, et al., 2007; Trevelyan, 2008). This confidence influences investment as well as risk-taking behaviors, including seeking external funding or starting a venture with the available resources (Dawson, de Meza, Henley, & Arabsheibani, 2014; De Meza & Southey, 1996). Moreover, optimism is a resource for coping with challenges in business (Luthans, Avolio, Avey, et al., 2007; Storey, 2011; Trevelyan, 2008). These contributions of self-efficacy and optimism are important for both objective and subjective success. These contributions facilitate the establishment and development of entrepreneurial ventures as well as the performance of the entrepreneur and the firm in general. In Study 1, we focus on the relationship of these two aspects of psychological capital with entrepreneurial performance, firm growth and entrepreneurs’ satisfaction. We propose the following:

Hypothesis 1. Self-efficacy is positively related to (a) entrepreneurial performance, (b) firm growth and (c) entrepreneurs’ satisfaction. (Study 1)

Hypothesis 2. Optimism is positively related to (a) entrepreneurial performance, (b) firm growth and (c) entrepreneurs’ satisfaction. (Study 1)

Moreover, these two aspects of psychological capital are believed to reinforce each other. The previous research has indicated that people with high optimism also tend to have high self-efficacy, particularly believing that they have the required competencies to achieve their expected goals (Storey, 2011). In addition to optimism being an expectation for positive outcomes, it is also an attribution style whereby positive events are assigned to personal and permanent causes (Luthans & Youssef-Morgan, 2017). When these evaluations and attributions are realistic to one’s capability, they enhance efficacy (Luthans, Avolio, Avey, et al., 2007). Therefore, we expect that optimism may affect entrepreneurial outcomes through its impact on efficacy beliefs.

Hypothesis 3. Self-efficacy mediates the effects of optimism on (a) entrepreneurial performance, (b) firm growth and (c) entrepreneurs’ satisfaction. (Study 1)

Whereas much of the entrepreneurship literature highlights the impact of self-efficacy and optimism on entrepreneurial entry, venture creation and success, the value of the “hope” and

“resiliency” resources cannot be overlooked. Hope is described as a motivational state of developing pathways and persistence towards achieving goals; when needed, it re-directs paths to attain the desired outcomes (Luthans, Avolio, Avey, et al., 2007; Luthans et al., 2004; Snyder, 2002). Entrepreneurship roles are highly goal achievement-oriented, making hope a relevant construct of achieving success and satisfaction. The evidence also suggests that hope is an antecedent for enhancing self-efficacy and optimism (DiPietro et al., 2007), which was demonstrated in the previous section as important to performing and persisting in entrepreneurial roles. Similarly, resiliency is a coping competence (Luthans, Avolio, & Avey, 2007); coping with both good and bad outcomes (Brandt, Gomes, & Boyanova, 2011; Luthans, Avolio, & Avey, 2007) is common in the daily life of the entrepreneur. It is this coping resource that entrepreneurs need when one’s business assumptions are proved wrong, when expected outcomes are not achieved, when a change of strategy is needed, or when an entrepreneur is confronted with daunting challenges and fierce competition. This coping capability is likely to result in increased persistence or commitment, satisfaction and wellbeing.

Overall, and beyond performance and commitment, psychological capital as a unitary concept has also been studied in relation to other work-related outcomes including satisfaction and wellbeing. Generally, individuals with higher psychological capital tend to be more satisfied in their jobs than those with low psychological capital; this is facilitated by the motivational force in positive states and the ability to make the best of one’s situation (Luthans, Avolio, Avey, et al., 2007). The high performance of individuals with higher psychological capital is also attributed to the idea that they possess higher psychological resources that they employ in a given situation (Hobfoll, 2002). Therefore, these individuals not only rate their own performance highly but their high performance can also be verified in objective measures such as income (Avey, Nimnicht, & Pigeon, 2010). This high performance may translate into satisfaction with the job, given that performance is a known predictor of job satisfaction (Judge et al., 2001). Concerning wellbeing, previous research shows that psychological resources are related to experiencing positive emotions, effective problem solving and lowered deviant behavior in the workplace (Avey, Hughes, Norman, & Luthans, 2008). This finding could explain why psychological capital is conceived to relate positively to employees’ work-life satisfaction and lowered stress (Avey et al., 2009, 2011; Baron et al., 2016). Baron et al. (2016) explain that entrepreneurs’ expectation of positive outcomes and their ability to plan alternative pathways to

achieve goals and to overcome challenges buffer against experiencing stress. These characteristics may result in a high sense of wellbeing, which we measure in this study with the construct “ meaning in life” in accordance with the conceptualization of eudaimonic wellbeing (Ryff & Keyes, 1995; Samman, 2007). Meaning in life is regarded as experiencing a sense of purposefulness (Ryff & Singer, 1998) and is linked to the enjoyment of work and the ability to overcome challenging circumstances (Samman, 2007). From the foregoing review, we hypothesize the following:

Hypothesis 4. Psychological capital is positively related to entrepreneurial outcomes, including (a) entrepreneurs’ job satisfaction, (b) commitment to the entrepreneurial role, (c) meaning in life, and (d) income. (Studies 2 & 3)

## **2.2. The Role of Autonomy in Entrepreneurial Success**

SDT (Deci & Ryan, 1980, 2011) proposes that behavior is motivated by either intrinsic motivation or extrinsic aspirations. However, the theory presents self or autonomous motivation, consisting of intrinsic and some forms of extrinsic motivation, as more critical for sustaining behavior (Deci & Ryan, 2008a, 2008c; Gagné & Deci, 2005). This presentation is because intrinsic motivation is related to inherent interest and enjoyment derived from engaging in an activity (Ryan and Deci, 2000), which fosters psychological growth (Deci & Ryan, 2000), which is thus important for psychological wellbeing. Thus, motivation for engaging in activities that individuals find interesting or enjoyable is facilitated by the desire to satisfy the three basic psychological needs: autonomy, competence, and relatedness (Deci & Ryan, 2000; Ryan & Deci, 2000). It is these needs that people seek to satisfy by engaging in their chosen careers; therefore, they are central to motivation to perform and persistence in a given activity (García Calvo et al., 2010; Vallerand et al., 1997; Welters et al., 2014).

The desire to satisfy psychological needs not only influences goals but their gratification is also related to optimum functioning (Deci & Ryan, 2008c). This finding may translate into increased performance and persistence. Moreover, in particular with regard to autonomy, this finding is an important outcome of work that enables individuals maintaining a strong level of psychological health and function (Otto et al., 2013). This finding is conceptualized as the self-organization and self-regulation in pursuit of goals (Deci & Ryan, 2000), and this freedom in pursuit of goals (self-endorsed goals) has a great impact on wellbeing (Ryan & Deci, 2001). This

result explains why people's efforts to gratify their autonomy need are linked to changing work roles and arrangements, particularly the increased preference for entrepreneurial work (Croson & Minniti, 2012; Hundley, 2001; Kolvereid, 1996; van Gelderen, 2010). Therefore, the achievement of autonomy should translate into enhanced motivation, performance, satisfaction, and commitment to the entrepreneurial role, as well as contribute to a general feeling of meaning in life.

SDT studies have particularly focused on the link between psychological needs, satisfaction and wellbeing. Regarding autonomy, SDT assumes that wellbeing and the experience of a satisfying, meaningful and purposeful life are intimately linked to autonomy in motivation, actions and pursuit of goals (Chirkov, Ryan, & Sheldon, 2010). That is, matters of a good life and happiness are inseparable from the autonomy of individuals; hence, SDT posits that autonomy is the psychological need most closely associated with eudaimonic wellbeing (Deci & Ryan, 2008b). Therefore, variations in autonomy (and other psychological needs) when engaging in activities tend to relate to fluctuations in reported wellbeing (Reis et al., 2000). This finding is argued to be true across cultures given that autonomy is a universal basic requirement for the regulation of one's behavior (Chirkov, Ryan, Kim, & Kaplan, 2003). Therefore, we hypothesize that autonomy is correlated to numerous work outcomes in the area of entrepreneurship:

Hypothesis 5. Autonomy is positively related to entrepreneurial outcomes, including (a) entrepreneurs' job satisfaction, (b) commitment to the entrepreneurial role, (c) meaning in life, and (d) income. (Studies 2 & 3)

Whereas we hypothesize psychological capital and autonomy to independently relate to different entrepreneurial outcomes, there is a possibility that the interaction of these two constructs could count for higher variance in entrepreneurial outcomes. Both psychological capital (Luthans et al., 2004, 2008) and autonomy (Ryan & Deci, 2000) are argued to espouse volition and flourishing aspects, suggesting their interdependence. For example, there is literature proposing that implementing one's efficacy beliefs is facilitated by autonomy (Devine et al., 2008). Therefore, we propose that the effects of psychological capital on entrepreneurial outcomes are likely to be higher for entrepreneurs who report higher levels of autonomy. An individual may have high confidence and expect suitable results or have alternative plans to

achieve goals; however, their implementation may depend on whether the person feels he or she has self-determination to invest, pursue business goals or to implement one's developed strategies.

Hypothesis 6. Entrepreneurial outcomes (including a. entrepreneurs' job satisfaction, b. commitment to the entrepreneurial role, c. meaning in life, and d. income) are higher for individuals who report higher levels of both psychological capital and autonomy. (Studies 2 & 3)

### **3. Methods and Results**

#### **3.1. Overview of the Studies**

To investigate our hypotheses, we conducted three survey studies with independent samples of entrepreneurs in two countries (Uganda and Germany). The different studies enable us to examine the impact of psychological capital and autonomy on different entrepreneurial outcomes in different settings. Study 1 investigates the impact of psychological capital on performance (entrepreneurial performance and overall firm performance) in small and medium enterprises in Uganda. The data analyzed in this study is obtained from owner-managers and chief executive officers (in cases where the owners are not involved in the running of the firm) of the companies. The study examines the impact of the psychological capital aspects of optimism and self-efficacy beliefs on entrepreneurial performance (Hypotheses 1 and 2) and entrepreneurs' job satisfaction (hypothesis 4 a). The study further examines the indirect effects of optimism on entrepreneurial performance through self-efficacy (Hypothesis 3).

Studies 2 and 3 address the remainder of the hypotheses (4 – 6). These studies focus on the impact of psychological capital and autonomy on entrepreneurial outcomes including entrepreneurs' job satisfaction, commitment to the entrepreneurial career role, eudaimonic wellbeing (particularly the aspect of meaning in life) and the objective outcome of income (Hypothesis 4 & 5). Study 2 was conducted in Uganda among young self-employed individuals who had recently graduated from high school, college, or university. Conversely, Study 3 was conducted generally among self-employed individuals in Germany and further differs from Study 2 by including the objective outcome of income. However, both studies examine the interaction effects of psychological capital and autonomy on the entrepreneurial outcomes.

#### **3.2. Study 1: Optimism, Efficacy Beliefs, and Entrepreneurial Performance Uganda**

##### **3.2.1. Method**

### 3.2.1.1. *Sample and Procedure*

Data for this study were collected from employees of small and medium enterprises in Uganda that participated in the 2013 edition of the Employer of the Year Award (EYA) survey. Participation criteria were based on the company being a registered member of the Federation of Uganda Employers (FUE). The report of the results leading to the award was reported elsewhere (FUE Report 2014). Whereas both owner-managers/directors or hired managers and employees participated in the EYA survey, for purposes of this study, we only analyze the responses of owner-managers and chief executive officers for firms where the owners are not involved in managing the business. The responses totaled to 117 who had complete responses regarding the constructs in our study. The respondents were, on average, relatively young entrepreneurs ( $M = 31.81$  years,  $SD = .47$ ), and the majority were male (67.5%). Most participants owned/ managed companies that were relatively small in size with an average of 30.17 employees.

### 3.2.1.2. *Measures*

The reliability (Cronbach's alpha) coefficients, means, standard deviations, and correlations between the different measures are indicated in Table 1.

*Insert Table 1 around here*

The measures used in this study are presented in Appendix 1. To measure *efficacy beliefs*, the EYA 2013 survey used a questionnaire consisting of five items. Participants were requested to compare themselves to an imaginary individual who has much self-confidence, as reflected in the five items. Sample items include "She/he is confident that she/he could deal efficiently with unexpected events in the business" and "She/he always manages to solve difficult problems if she/he tries hard enough". These items were measured on a 7-point scale, ranging from 1 (this is very much not like me) to 7 (this is exactly like me), and had a Cronbach's alpha of .86. The measure of *optimism* consisted of eight items requiring participants to evaluate their frequency of optimistic practices on a 7-point scale, ranging from 1 (never) to 7 (always without fail). Sample items include "I am always having a positive outlook towards challenges" and "In evaluating situations, I tend to magnify strengths and opportunities". The measure had a Cronbach alpha of .90.

The measure for *performance* consisted of nine items, which we divided into 3 factors: entrepreneurial performance, firm growth, and entrepreneurs' satisfaction. The *entrepreneurial*

*performance* factor consisted of three items focusing on performance on entrepreneurial practices (sample items: “this firm has managed to develop new markets in the previous year” and “this enterprise has understood the strength of its competitors”;  $\alpha = .76$ ). The *entrepreneurial growth* factor consisted of four items (sample: “my business has increased the number of customers over the years” and “compared to previous years, the sales of goods/ services in my business has increased”;  $\alpha = .74$ ). Lastly, the entrepreneurs’ satisfaction factor consisted of two items: “as a business owner/ manager, I am satisfied with the performance of my business; and “I am satisfied with the income of the business” ( $\alpha = .73$ ). For all three factors, items were rated on a 7-point scale ranging from 1 (this is extremely untrue) to 7 (this is extremely true).

### 3.2.2 Study 1 Results

To test whether psychological capital dimensions of self-efficacy beliefs and optimism are related to entrepreneurial outcomes (performance rating, growth rating, and entrepreneurs’ satisfaction), and whether the impact of optimism on these outcomes is mediated by self-efficacy (hypotheses 1 - 3), we applied mediation regression models in PROCESS macro (model 4). A different model was calculated for each outcome. We also applied bootstrapping as described by Hayes (2013). We also controlled for the effects of sex, age and size of the firm (reflected in number of employees) as these have been found to impact on business outcomes (e.g., Lee, Upneja, Özdemir, & Sun, 2014; Santarelli & Tran, 2013; Vithessonthi & Tongurai, 2015). The results in Table 2 show that self-efficacy is positively related to entrepreneurial performance rating ( $B = .42, SE = .12, p < .001$ ), firm growth rating ( $B = .34, SE = .17, p = .043$ ) and satisfaction rating ( $B = .71, SE = .22, p = .002$ ). These results provide support for hypotheses 1a, 1b and 1c. Similarly, optimism was positively related to performance ( $B = .34, SE = .13, p = .012$ ) and growth ( $B = .39, SE = .19, p = .047$ ) but not significantly related to satisfaction rating ( $B = .43, SE = .24, p = .077$ ). The effects of optimism on satisfaction were not significant because of the mediation by self-efficacy, given that the total effects of optimism were significant ( $B = .92, SE = .18, CI = .56$  to  $1.28$ ). These results support hypotheses 2a, 2b and 2c. The mediation results also provide support for hypotheses 3a, 3b and 3c, indicating that self-efficacy indeed (partially) mediates the effects of optimism on entrepreneurial outcomes, as reflected in the indirect effects for each outcome; entrepreneurial performance ( $B = .29, SE = .09, CI = .12$  to  $.49$ ), growth ( $B = .24, SE = .12, CI = .01$  to  $.47$ ) and entrepreneurs’ satisfaction ( $B = .49, SE = .17, CI = .21$  to  $.85$ ). Whereas self-efficacy partially mediated the effects of optimism

on entrepreneurial performance and growth ratings, the effects on entrepreneurs' satisfaction were fully mediated.

*Insert Table 2 around here*

*Insert Figure 2 around here*

### **3.3. Study 2: Impact of Psychological Capital and Autonomy on Entrepreneurial Outcomes in Young Self-Employed Individuals in Uganda**

#### **3.3.1. Methods**

##### *3.3.1.1. Sample and Procedure*

Study participants were 156 young persons in Uganda who are engaged in self-employment. These included individuals who have recently graduated from high school, technical colleges or university and are engaged in self-employment as their only or main employment activity. Participants were recruited through youths' business forums in the capital city (Kampala). Survey questionnaires were administered through the paper and pencil method. Participants were aged 18 to 30 years ( $M = 24.49$ ,  $SD = .66$ ). The majority were male (55.8%), degree holders (53.2%) and had previous experience in salaried employment either during their school time or after graduation (60.9%).

##### *3.3.1.2. Measures*

This study assessed the impact of psychological capital and autonomy on entrepreneurial outcomes (entrepreneurs' satisfaction and commitment to the entrepreneurial career role). Cronbach's alpha coefficients, means, standard deviations, and correlations of variables are presented in Table 3.

*Insert Table 3 around here*

To measure *psychological capital*, we used the Psychological Capital Questionnaire (Luthans, Avolio, & Avey, 2007) – PCQ12 version. Participants indicated their degree of agreement with 12 statements (e.g., “I can think of many ways to reach my current work goals”). The PCQ12 is a short version of the original psychological capital questionnaire (PCQ24) (Luthans, Avolio, & Avey, 2007), which was rated on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly disagree).

To measure *autonomy*, we adopted the shot measure from the eDeci and Ryan Basic Psychological Needs scale (see: Samman, 2007; pp 464-465). This questionnaire consists of three items measured on a 4-point scale from 1 (not at all true) to 4 (completely true). A sample item is “I feel like I can pretty much be myself in daily situations”.

*Job Satisfaction* was measured using six items from the revised sub-scales of the short form of Minnesota satisfaction questionnaire (Hirschfeld, 2000). It should be noted that only items identified as intrinsic were included in our questionnaire. However, two items (“the chance to do things for other people” and “the chance for advancement in this job”) were eliminated. The first was eliminated because of low loading, while the second was eliminated because it was deemed not applicable to the context of the self-employed. The items were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A sample item reads “the chance to do different things from time to time”.

To measure *Commitment* to entrepreneurial career roles, we adopted four items from the career commitment scale (Blau 1988, 1985) that we deemed fitting to the context of the self-employed. The scale measures one’s commitment to his/ her career field or occupation. In the present study, we measured the commitment of the self-employed to continue in their self-employment/ entrepreneurial roles. A sample item reads “self-employment is the ideal vocation for a life work”. Items were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

### **3.3.2. Study 2 Results**

To examine the effect of psychological capital, autonomy and their interactive effects on entrepreneurial outcomes (entrepreneurs’ satisfaction and commitment to the entrepreneurial role), we applied moderated regression analysis in PROCESS macro (model 1). A different model was calculated for each outcome; with sample bootstrapping at 5000 as described by Hayes (2013). In each of these models, we controlled for effects of age, sex, and previous experience in salaried work, given that having been wage-employed impacts some entrepreneurial outcome indicators such as income (Iversen et al., 2016). The results in Table 4 revealed that psychological capital was positively related to entrepreneurs’ satisfaction ( $B = .32$ ,  $SE = .05$ ,  $p < .001$ ) and commitment to the entrepreneurial role ( $B = .22$ ,  $SE = .09$ ,  $p = .019$ ). These results provide support for hypotheses 4a and 4b. The results also reveal that autonomy

was positively related to entrepreneurs' satisfaction ( $B = .14, SE = .05, p = .004$ ) and commitment ( $B = 1.20, SE = .10, p < .001$ ). These results confirm hypotheses 5a and 5b. Our results further confirm hypotheses 6a and 6b by showing significant interaction effects of psychological capital and autonomy on satisfaction ( $B = .18, SE = .09, p = .044$ ) and commitment ( $B = .36, SE = .17, p = .033$ ). The conditional effects of psychological capital on entrepreneurial outcomes at the levels of autonomy in Table 4, as well as the plots in Figures 3 and 4, show that entrepreneur's satisfaction and commitment were highest for entrepreneurs with high levels of both psychological capital and autonomy.

*Insert Table 4 around here*

*Insert Figures 3 and 4 around here*

### **3.4. Study 3: Impact of Psychological Capital and Autonomy on Entrepreneurial Outcomes of Self-Employed Individuals in Germany**

#### **3.4.1. Methods**

##### *3.4.1.1. Sample and Procedure*

Self-employed individuals were invited to participate in the online survey. Calls for participation were posted on several online forums for the self-employed and freelancers in Germany. In a period of four months, a total of 90 individuals had responded; however, nine participants were eliminated from the analysis because they did not qualify to be called self-employed or entrepreneurs. Participants were aged 18 to 79 years ( $M = 37.53, SD = 11.92$ ) and the majority was male (53.1%). Given the wide age range, the period participants had spent in self-employment also varied widely from 1 to 55 years ( $M = 6.56, SD = 9.50$ ); in addition, income varied from below 1,000.00 EUR to 10,000.00 EUR ( $M = 2,481.19$  EUR,  $SD = 1.67$ ). It should be noted that the standard deviation for income is relatively low because the responses were grouped as indicated below in the sub-section of measures.

##### *3.4.1.2. Measures*

Psychological capital, autonomy and entrepreneurs' satisfaction were evaluated with the same measures described in Study 2. However, in Study 3, psychological capital was assessed with the PCQ24 version (Luthans, Avolio, & Avey, 2007). In addition, the study measured more entrepreneurial outcomes including meaning in life (as an aspect of wellbeing) and income (as an

objective success parameter). Descriptive statistics of these measures, their Cronbach's alpha estimates, and correlations are reported in Table 5.

To measure *meaning in life*, we adopted the short form of Steger's meaning in life questionnaire (see: Samman, 2007; pp 464-165). The questionnaire consists of three items measured on a 4-point scale from 1 (not at all true) to 4 (completely true). A sample item is "I have discovered a satisfying life purpose". Income was measured by asking participants to indicate how much they earned from their businesses on average per month in the range of below 1,000 EUR, 1,000 to 1,999 EUR, 2,000 to 2,999 EUR, 3,000 to 3,999 EUR, 4,000 to 4,999 EUR, 5,000 to 5,999 EUR, 6,000 to 10,000 EUR, and above 10,000 EUR. However, no participant reported earnings in excesses of 10,000 EUR. It should be noted that these refer to income earned in the form of salary from the business and not the total income of the business.

### 3.4.2. Study 3 Results

The same analytic procedure used in Study 2 was also applied in Study 3. In addition to sex and age, length of time participants had spent in self-employment was added to the control variables. The results confirmed the findings of Studies 1 and 2 regarding entrepreneurs' satisfaction, an outcome that was examined across all three studies. The results in Table 6 show that psychological capital was positively related to both subjective outcomes; entrepreneurs' satisfaction ( $B = .33, SE = .07, p < .001$ ) and meaning in life ( $B = .22, SE = .08, p = .007$ ), confirming hypotheses 4a and 4c. However, the factor's effect on the objective measure (income), was not significant; therefore, hypothesis 4d is not supported. Similar to the effects of psychological capital, autonomy was significantly and positively related to the subjective measures; entrepreneurs' satisfaction ( $B = .34, SE = .12, p = .005$ ), and meaning in life ( $B = .68, SE = .12, p < .001$ ), supporting hypotheses 5a and 5c. The effects of autonomy on income were marginal ( $B = .75, SE = .42, p = .079$ ); hence, hypothesis 5d is not supported.

However, the interactive effects of psychological capital and autonomy were significant for income ( $B = .92, SE = .35, p = .011$ ), confirming hypothesis 6d. The interactive effects on subjective outcomes are not significant; therefore, hypotheses 6a and 6c were not supported. As shown in Figure 7, entrepreneurs with higher psychological capital and autonomy reported earning more than their counterparts with psychological capital and autonomy; this is more than those with high psychological capital but with low autonomy. Conversely, Figures 5 and 6 show

that participants reported high satisfaction or meaning in life at higher levels of psychological capital. Concerning the increase in satisfaction and meaning in life due to the interaction with autonomy, the increase specifically for meaning in life was nearly similar at all levels of autonomy and was attributable primarily to levels of psychological capital.

#### **4. Discussion**

Entrepreneurship and self-employment in the current economic context play important roles for economies and individuals. The role of entrepreneurship in economic development is widely documented and is also increasingly becoming a common form of employment, particularly in developing countries (Falco and Haywood, 2016; Gindling and Newhouse, 2014). However, self-employment or entrepreneurial roles differ from the traditional wage-employment and offer unique challenges; thus, it is important to focus on its outcomes beyond economic parameters (Wiklund et al., 2016). The present studies examined a range of entrepreneurial outcomes including performance, income, satisfaction, meaning in life and commitment to entrepreneurial career roles and how they relate to psychological capital and autonomy. We argue that psychological resources and a feeling of freedom present the magic for entrepreneurs to do their best, thus achieve magical results. We propose that entrepreneurs who are successful do not achieve success through a kind of sheer magic or luck; instead, they do so through a strong positive mindset that employs one's psychological resources to the fullest. Additionally, when one operates in an environment where one feels autonomy at work, there will be greater outcomes, both objective and subjective. Thus, the present studies highlight the role of positive psychological strengths in achieving entrepreneurial success. As highlighted by Wiklund et al. (2016), a number of wellbeing and positive psychological concepts, as those we assess in the present studies, have not yet garnered adequate focus on entrepreneurship research.

Specifically, the results of Study 1 confirmed that positive psychological resources including self-efficacy and optimism, which are part of what is called psychological capital (Luthans, 2002; Luthans et al., 2004; Page & Donohue, 2004), are essential for entrepreneurial performance and growth. Self-efficacy and optimism have garnered a large amount of focus in relation to entrepreneurial intentions and entry (e.g., Austin & Nauta, 2016; Elfving, Brännback, & Carsrud, 2009; Hsu, Wiklund, & Cotton, 2017). Our study contributes to the growing literature of the relevance of these resources to entrepreneurial success (e.g., Adomako, Danso,

& Uddin, 2016; Baluku et al., 2016; Dawson, 2017; Hsu et al., 2017); however, our study extends beyond general success to focus on specific outcomes. Although Dawson (2017) finds that financial optimism has a negative impact on pay satisfaction among entrepreneurs, our findings are in support of earlier findings that optimism is related to positive entrepreneurial outcomes such as the general satisfaction of the entrepreneur as well as persistence (Adomako et al., 2016).

The findings of Study 1 show that efficacy beliefs and optimism are related to entrepreneurial performance and general firm growth ratings. Although we do not examine the mechanisms through which these psychological resources impact on performance measures, the likelihood is that these resources positively affect entrepreneurs' behavior, decisions, and efforts, which translate into enhanced performance and firm growth. As aspects of psychological capital, these factors are known to relate to motivation and engagement, which enhances work performance (Datu et al., 2016; Joo et al., 2016; Simons and Buitendach, 2013). In the entrepreneurial context, high optimism and efficacy are important for investment decisions and exploitation of opportunities as well as entrepreneurs' level of involvement in firms' activities and processes. Moreover, the positive mindset of the entrepreneur has the potential to elicit positivity among employees, leading to higher employee motivation, engagement, commitment, and performance. This view is backed by previous findings that leaders' psychological capital is positively related to followers' psychological capital and consequently higher individual as well as team performance (Newman et al., 2014). Thus, psychological capital can be the bedrocks for entrepreneurial performance and general growth of the venture. We further find that the effects of optimism on entrepreneurial performance (and other outcomes assessed in Study 1 – satisfaction and firm growth) were mediated by self-efficacy. The extant literature previously shows that optimism tends to increase self-efficacy (Luthans, Avolio, Avey, et al., 2007; Storey, 2011). Therefore, optimism leads to confidence for entrepreneurs to invest, to sustain action and to exploit opportunities, which justifies Storey's (2011) reference to it as an “elephant in the entrepreneur's room”.

An important work outcome that we investigate in all the three studies is entrepreneurs' satisfaction with their job. Job satisfaction is regarded an important job attitude because of its relations to other work attitudes and outcomes including commitment, performance, and

wellbeing at work (Mau et al., 2008; McGuigan et al., 2015; Street, 2005). In Study 1, we assessed general job satisfaction as it relates to psychological resources of efficacy beliefs and optimism. In Studies 2 and 3, we assessed intrinsic satisfaction as it relates to psychological capital and autonomy. In all three studies, psychological capital, or its dimensions, and autonomy were positively related to entrepreneurs' job satisfaction. This finding is consistent with the literature on the impact of psychological capital on wellbeing of workers. It has been argued that higher psychological capital implies having more psychological resources (Hobfoll, 2002) to utilize in performing various entrepreneurial tasks and addressing challenges in entrepreneurship. These are not only important for performance but also result in experiencing positive emotions (Avey et al., 2009; Baron et al., 2016) in the workplace and hence, higher satisfaction. The results of Study 2 reveal that autonomy is not only related to entrepreneurs' job satisfaction but it also moderates the effect of psychological capital on entrepreneurs' job satisfaction. Although this assumption is not supported by the results from the German sample (Study 3). The literature posits that certain individuals are attracted to entrepreneurship because of the work autonomy it offers (Kolvereid, 1996; van Gelderen, 2010). Therefore, satisfying this need contributes significantly to entrepreneurs' job satisfaction. SDT shows that autonomy is important for the motivation of workplace behavior. Hence, the level of experienced autonomy may matter, in some contexts, in the process of psychological capital facilitating the positive behaviors and emotions that cause entrepreneurs' work satisfaction.

Concerning entrepreneurs' wellbeing, we assessed entrepreneurs' experience of meaning in life in Study 3. Our findings revealed that this aspect of wellbeing is affected by both entrepreneurs' psychological capital and autonomy. Literature relating to both predictors emphasize flourishing, indicating that when individuals have high levels of psychological capital and autonomy, they are likely to experience purposefulness, meaning, happiness, and other related positive emotions. Specifically, psychological capital has been found to enhance the quality of work of entrepreneurs and buffers against stress involved in entrepreneurial work which in turn improves their wellbeing (Baron et al., 2016). Regarding autonomy, SDT proposes that satisfaction of psychological needs is important for a eudaimonic living (Ryan & Deci, 2001), hence experiencing happiness and meaningfulness. Therefore, autonomy is not only a goal that entrepreneurs seek to achieve at work but also a precedence for finding satisfaction and meaningfulness in work and life in general. The opportunity and ability to plan and make

important decisions about one's business, being one's own boss, contributing to society and economy through taxes and employing others are some of the things that are likely to provide a sense of fulfillment for entrepreneurs; consequently, they experience feelings of meaningfulness in life.

Much of our discussion has thus far focused on subjective outcomes of entrepreneurship. The results of Study 3 suggest that psychological capital and autonomy are also contributing to the achievement of objective entrepreneurial outcomes. Both psychological capital and autonomy as independent predictors were not significantly related to entrepreneurs' incomes. However, there were positive interactive effects. Entrepreneurs' incomes are normally closely linked to volume of sales and profits, which can also be considered indicators of performance. We already discussed the value of psychological capital aspects on entrepreneurial performance. Importantly, entrepreneurs with highly performing ventures are likely to earn higher incomes. Therefore, this finding confirms the role of psychological capital in entrepreneurial performance and reaffirms the proposition that psychological capital has a higher impact on entrepreneurs' behavior if they experience higher levels of autonomy. Entrepreneurs can enhance their incomes through expanding markets, making more investments, exploiting new opportunities, changing strategies, networking, and adapting or innovating in relation to competition trends and other related business processes. These activities are all linked to psychological resources of entrepreneurs. Our results suggest that for psychological capital to facilitate these processes and activities, entrepreneurs need to feel the autonomy to decide and to act.

Lastly, we assessed entrepreneurs' commitment or willingness to continue working in self-employment (Study 2). The findings of this study offer evidence regarding the relationship between positive psychological attributes and entrepreneurial persistence (Adomako et al., 2016; Bates, 1990; Patel and Thatcher, 2014). Persistence in entrepreneurial roles is important for several reasons. First, financial returns on investment in entrepreneurial activities often accrue in the long term. Moreover, entrepreneurship can best contribute to economic development of entrepreneurs if they sustain their entrepreneurial efforts. Moreover, in the dynamic labor market, self-employment is playing a major role in reducing unemployment. Similar to Patel & Thatcher's (2014) study and in accordance with SDT (Ryan & Deci, 2000), our findings indicate that autonomy fosters motivation for commitment to entrepreneurial activities. When individuals

have less psychological resources and experience low levels of autonomy, the intrinsic interest and enjoyment of entrepreneurial activities may decrease, resulting in an exit. Conversely, when individuals have higher psychological capital, they are likely to be resilient during negative experiences and to take risks. Coupled with the autonomy to decide and act, individuals with higher psychological capital and autonomy have a higher likelihood of persistence. Moreover, psychological capital and autonomy are related to satisfaction, wellbeing, and performance, which, in turn, may cause commitment to entrepreneurial career roles.

#### ***4.1. Theoretical and practical implications***

The findings from the three studies have important implications for theory and practice. First, the findings extend the application of psychological capital concept (Luthans et al., 2004; Fred Luthans & Youssef-Morgan, 2017) to explaining critical entrepreneurial outcomes. Most of the entrepreneurial psychology research seeks to understand the cognitions and behaviors that lead to successful entrepreneurship. The results of the present studies contribute to this goal by showing that psychological resources, summed up as psychological capital, contribute significantly to the realization of entrepreneurial outcomes, both subjective and objective. Whereas individuals may choose entrepreneurship as a career, actual entry and establishment phases require psychological resources to identify opportunities that are invisible to others, to overcome the numerous challenges involved in the different phases of entrepreneurial development and to cope with stress involved in everyday work of an entrepreneur (Baron et al., 2016). Our results indicate that when entrepreneurs have high psychological resources, they are likely to realize several desirable outcomes including performance, satisfaction, wellbeing, and persistence in entrepreneurship.

Similarly, the present studies also extend the application of SDT (Deci & Ryan, 1980; Deci & Ryan, 2011) to entrepreneurial research. Accordingly, work is a venue for individuals to satisfy their psychological needs to facilitate psychological growth. Moreover, these affect work motivation and persistence. The research has specifically focused on autonomy as a pull factor to entrepreneurial roles (e.g., Nabi, Walmsley, & Holden, 2013). Findings of the present studies support that view that autonomy is an outcome that individuals seek from entrepreneurial engagements to further their psychological growth. Moreover, achievement of this outcome facilitates realizing of other essential outcomes including meaning in life, satisfaction, and

commitment to entrepreneurial career roles. In addition, our results indicate that autonomy is a precondition necessary for entrepreneurs to use their psychological resources.

Our studies also contribute to the growing body of literature that is expanding the scope of entrepreneurial success. Recently, scholars have made observations that focus on financial measures to assess success in inadequate given that entrepreneurship provides much more than just financial benefits but also psychic benefits (Jennings et al., 2016; Rindova et al., 2009). By investigating psychological outcomes including satisfaction, commitment and meaning in life, we have demonstrated that entrepreneurial success includes measurement of psychological goals. In addition, our study has demonstrated that achievement of entrepreneurial success is also facilitated not just by economic resources but also by psychological inputs.

In addition to these theoretical implications, these studies also provide suggestions for practice particularly regarding soft skills needed by entrepreneurs. We have demonstrated that entrepreneurial success is significantly influenced by mindset related factors. This finding has implications for entrepreneurial training, mentoring and counseling. The findings of the present study suggest that entrepreneurs should be supported in developing their psychological resources and how to apply them in the entrepreneurial processes. Enabling individuals to develop their psychological capital is valuable since it results in positive behaviors (Luthans, Youssef, & Avolio, 2007); this, in turn, leads to desirable entrepreneurial outcomes. In accordance with the call for entrepreneurial education to focus on enhancing capacity for autonomous action (van Gelderen, 2010), the present studies have demonstrated that objective and subjective successes are closely linked to the level of autonomy. Therefore, an important goal for training and support interventions should focus on strengthening entrepreneurs' mindsets by assisting them in developing psychological resources and the ability to act autonomously.

#### **4.2. *Limitations and Further Research***

Despite the merit of providing data of multiple samples (including two countries, and various age groups and/or entrepreneurial tenures), these studies are not without limitations. First, all the three studies used self-report measures only; thus, a possibility of social desirability bias (Miller, 2012) especially in responses regarding one's own psychological resources and the subjective outcomes cannot be ruled out. There is a likelihood that this bias might inflate the observed relationships among the psychological resources and entrepreneurial outcomes.

Second, although the paper is constituted by three studies, these are all cross-sectional surveys; therefore, they do not provide adequate evidence for concrete conclusions regarding the extent to which psychological capital and autonomy indeed influence the entrepreneurial outcomes measured in these studies. Reversed causation effects – i.e., that entrepreneurs with better outcomes (e.g., higher salary, more job satisfaction) also evaluate their positive mindset in a more positive way – could not be explored. Future studies might need to adopt experimental and longitudinal approaches in examining the extent to which psychological capital co-varies with different objective and subjective entrepreneurial outcomes in the long-term. Additionally, intervention research where entrepreneurs are supported to develop their psychological capital and capacity for autonomous action and observations of how these translate into enhanced entrepreneurial outcomes would be fruitful starting points.

Third, each of the studies reported in this paper examined quite different outcomes, with the exception of entrepreneur's job satisfaction, which was measured in all three studies. Therefore, the results do not provide a basis for comparing the impact of psychological resources in different populations. The finding that psychological capital and autonomy and their interaction affect subjective outcomes differently among Uganda sample (Study 2) and German sample (Study 3) point to the likely effects of cultural differences. Therefore, a cross-cultural study might be important in establishing cultural differences in the impact of psychological resources and autonomy on different entrepreneurial outcomes. Lastly, Study 3 measured an objective outcome of income. However, our measure evaluated income only in terms of the entrepreneurs' take home monthly income. This finding is not representative of the financial performance of the venture. Future research, as suggested by (Baron et al., 2016) should also include measures that assess the actual financial performance. In addition, it could be valuable to assess the impact of these psychological resources on more objective outcomes of entrepreneurship.

#### **4.3. Conclusion**

The results of our studies suggest that entrepreneurs' psychological capital and the actual experience of autonomy in entrepreneurship are important for several entrepreneurial outcomes including entrepreneurial performance, firm growth, entrepreneurs' job satisfaction, meaning in life (wellbeing) and commitment to entrepreneurial career roles; however, these also relate to

objective success indicators such as income. We have also demonstrated that autonomy appears to be an important precondition for entrepreneurs to utilize their psychological resources. These findings suggest that a mindset characterized by positive thinking and feeling of autonomy not only motivates entrepreneurs to work diligently and persist but also elicits positive behaviors necessary for the achievement of a wide range of subjective and objective outcomes. Therefore, entrepreneurs do not compete and succeed with the help of sheer magic or luck; instead, the psychological resources constitute the magical ingredient for successful entrepreneurship, matching the description of “HERO within” (Luthans & Youssef-Morgan, 2017) for entrepreneurs.

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Table 1. Descriptive statistics and inter-correlations of variables (Study 1)

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Sex	.68		1							
2. Age	31.81	1.10	-.02	1						
3. Number of employees	30.17	.41	-.14	.24**	1					
4. Optimism	6.16	.67	.30***	-.13	-.05	<b>.90</b>				
5. Efficacy beliefs	6.21	.71	.23**	-.02	-.08	.56***	<b>.86</b>			
6. Entrepreneurial performance	6.04	.76	-.04	-.03	-.12	.49***	.51***	<b>.76</b>		
7. Firm growth	6.12	.87	.14	-.25**	-.09	.51***	.40***	.69***	<b>.74</b>	
8. Satisfaction	5.09	1.25	.13	.01	.01	.48***	.42***	.61***	.69***	<b>.73</b>

\*\*\*.  $p < 0.01$ , \*\*.  $p < 0.01$

Sex coded as: 0 = Female, 1 = male

Reliabilities are indicated in diagonal and bold

Table 2. Regression analysis for the effect of optimism and efficacy beliefs on entrepreneurial outcomes (Study 1)

Predictors	Entrepreneurial performance				Firm growth				Satisfaction			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>T</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Sex	-.39	.13	-3.05	.003	-.04	.17	-.23	.820	-.08	.22	-.37	.712
Age	.03	.07	.43	.683	-.16	.14	-1.17	.433	.03	.13	.24	.604
Number of employees	-.22	.23	-.95	.346	-.01	.26	-.02	.983	.10	.24	.43	.670
Efficacy	.42	.12	3.50	< .001	.34	.17	2.04	.043	.71	.22	3.19	.002
Optimism	.34	.13	2.57	.012	.39	.19	2.01	.047	.43	.24	1.78	.077
Model summary	$R^2 = .38, F(5, 111) = 16.69, p < .001$				$R^2 = .33, F(5, 111) = 15.26, p < .001$				$R^2 = .32, F(5, 111) = 8.09, p < .001$			
Summary of total and indirect effects	Effect	<i>SE</i>	Bootstrap 95%CI Lower Upper		Effect	<i>SE</i>	Bootstrap 95%CI Lower Upper		Effect	<i>SE</i>	Bootstrap 95%CI Lower Upper	
Optimism (total)	.63	.10	.44	.83	.63	.11	.40	.85	.92	.18	.56	1.28
Efficacy (indirect)	.29	.09	.12	.49	.24	.12	.01	.47	.49	.17	.21	.85
Normal theory test	Effect	<i>SE</i>	<i>z</i>	<i>p</i>	Effect	<i>SE</i>	<i>z</i>	<i>p</i>	Effect	<i>SE</i>	<i>z</i>	<i>p</i>
	.29	.09	3.25	.001	.23	.12	1.98	.048	.49	.17	2.99	.003

Table 3. Descriptive statistics of controls, psychological capital and entrepreneurial outcomes, and their inter-correlations (Study 2)

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Age	24.49	.66	1							
2. Sex	.56		.22**	1						
3. Education	.53	.50	.49***	.17*	1					
4. Experience <sup>a</sup>	.39	.	-.19*	-.11	-.17*	1				
5. Autonomy	2.66	.76	.30***	.21**	.25**	.01	<b>.82</b>			
6. Psychological capital	4.35	.63	.05	-.08	-.03	-.01	.13	<b>.87</b>		
7. Satisfaction	3.85	.43	.08	-.02	-.15	-.13	.28***	.44***	<b>.80</b>	
8. Commitment	2.99	1.20	.36***	.22**	.23**	-.13	.53***	.17*	.28***	<b>.89</b>

\*\*\*.  $p < 0.001$ , \*\*.  $p < 0.01$ , \*.  $p < 0.05$ ,

<sup>a</sup> Experience in salaried employment (coded as 0 = no experience, 1 = with experience)

Sex coded as: 0 = Female, 1 = Male

Reliabilities are indicated in diagonal and bold

**Table 4.** Moderated regression analysis for the effect of psychological capital and autonomy on entrepreneurial outcomes (Study 2)

Predictors	Satisfaction				Commitment			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Sex	-.06	.06	-.81	.421	.05	.10	.48	.634
Age	.04	.05	.83	.404	.17	.11	1.56	.121
Education	-.22	.07	-3.34	.001	-.08	.11	-.74	.462
Experience <sup>a</sup>	-.12	.08	-1.60	.112	-.23	.12	-1.94	.054
Psychological capital (PsyCap)	.32	.05	6.32	<.001	.22	.09	2.37	.019
Autonomy	.14	.05	2.97	.004	1.20	.10	12.46	<.001
PsyCap × Autonomy	.18	.09	2.03	.044	.36	.17	2.15	.033
Model summary	$R^2 = .34, F(7, 148) = 15.21, p < .001$				$R^2 = .73, F(7, 148) = 73.12, p < .001$			
$\Delta R^2$ due to interaction	$\Delta R^2 = .03, F(1, 148) = 4.12, p = .044$				$\Delta R^2 = .02, F(1, 148) = 4.63, p = .033$			

Conditional effects of psychological capital on entrepreneurial outcomes at the levels of autonomy

	Effect	<i>SE</i>	Bootstrap 95%CI		Effect	<i>SE</i>	Bootstrap 95%CI	
			Lower	Upper			Lower	Upper
Low autonomy	.18	.04	.09	.27	-.05	.10	-.25	.15
Average autonomy	.32	.05	.22	.42	.22	.09	.04	.40
High autonomy	.45	.11	.24	.67	.49	.20	.10	.88

**Table 5.** Descriptive statistics of controls, psychological capital, autonomy and entrepreneurial outcomes and their inter-correlations  
(Study 3)

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Sex	.53		1							
2. Age	37.53	11.92	.11	1						
3. Time in self-employment	6.56	9.5	.19	.75***	1					
4. Psychological capital	4.75	.78	.05	.09	-.02	<b>.91</b>				
5. Autonomy	3.31	.56	-.09	.22	.14	.54***	<b>.77</b>			
6. Income	2481.19	1.67	.31**	.02	.11	.25*	.23*	1		
7. Meaning in life	3.27	.73	.06	.16	.10	.54***	.69***	.08	<b>.88</b>	
8. Satisfaction	4.14	.64	-.22*	.11	-.08	.60***	.60***	.17	.50***	<b>.84</b>

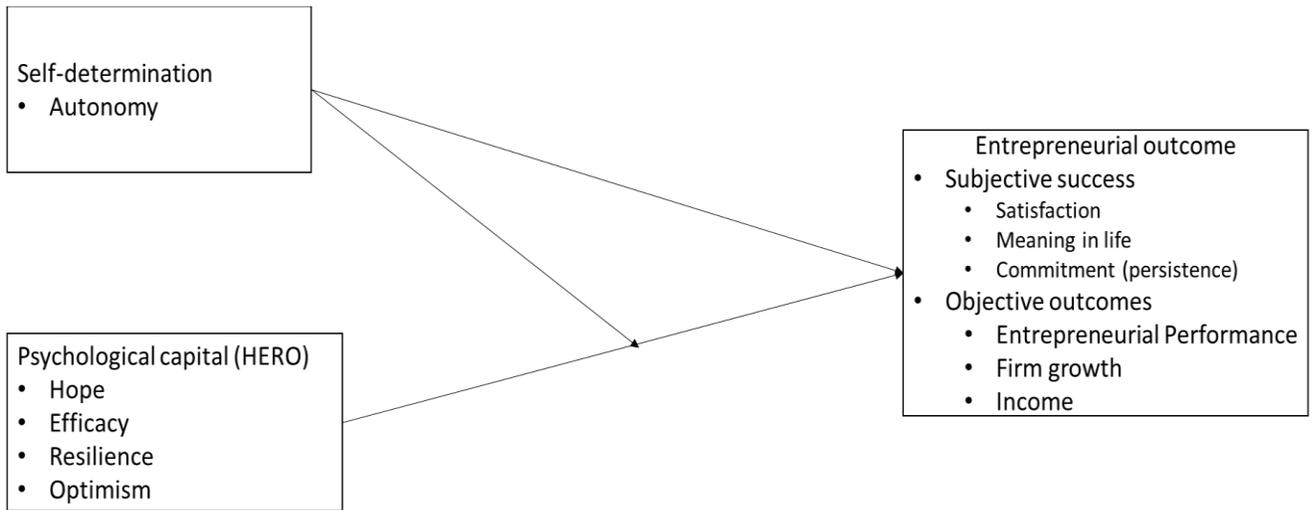
\*\*\*.  $p < 0.01$ , \*\*.  $p < 0.01$ , \*.  $p < 0.05$  level

Sex coded as 0 = Female, 1 = Male

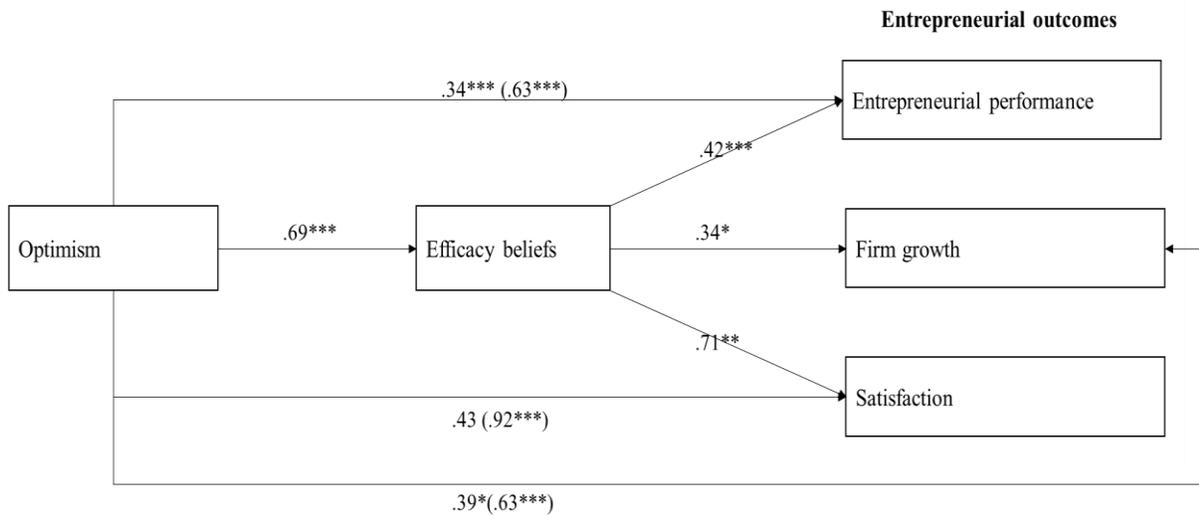
Reliabilities are indicated in diagonal and bold

**Table 6.** Moderated regression analysis for the effect of psychological capital and autonomy on entrepreneurial outcomes (Study 3)

Predictors	Subjective outcomes								Objective outcomes			
	Satisfaction				Meaning in life				Income			
	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Sex	-.25	.11	-2.41	.019	.14	.12	1.15	.253	1.09	.35	3.16	.002
Age	.01	.01	1.55	.125	.01	.01	.17	.869	-.03	.02	-1.46	.150
Time spent in self-employment	-.02	.01	-1.80	.077	-.01	.01	-.11	.910	.03	.03	.97	.336
Psychological capital (PsyCap)	.33	.07	4.89	<.001	.22	.08	2.78	.007	.35	.26	1.35	.180
Autonomy	.34	.12	2.87	.005	.68	.12	5.62	<.001	.75	.42	1.78	.079
Psycap × Autonomy	-.18	.14	-.26	.211	-.18	.13	-1.39	.170	.92	.35	2.61	.011
Model summary	$R^2 = .55, F(6, 74) = 11.38, p < .001$				$R^2 = .54, F(6, 74) = 11.06, p < .001$				$R^2 = .24, F(6, 74) = 6.14, p < .001$			
$\Delta R^2$ due to interaction	$\Delta R^2 = .02, F(1, 74) = 1.59, p = .211$				$\Delta R^2 = .01, F(1, 74) = 1.92, p = .170$				$\Delta R^2 = .06, F(1, 74) = 6.80, p = .011$			
Conditional effects of psychological capital on entrepreneurial outcomes at the levels of autonomy												
	Effect	<i>SE</i>	Bootstrap 95%CI		Effect	<i>SE</i>	Bootstrap 95%CI		Effect	<i>SE</i>	Bootstrap 95%CI	
			Lower	Upper			Lower	Upper			Lower	Upper
Low autonomy	.43	.12	.20	.66	.32	.11	.10	.53	-.16	.34	-.84	.51
Average autonomy	.33	.07	.20	.47	.22	.08	.06	.38	.35	.26	-.17	.87
High autonomy	.23	.09	.05	.42	.12	.10	-.09	.33	.87	.31	.25	1.49

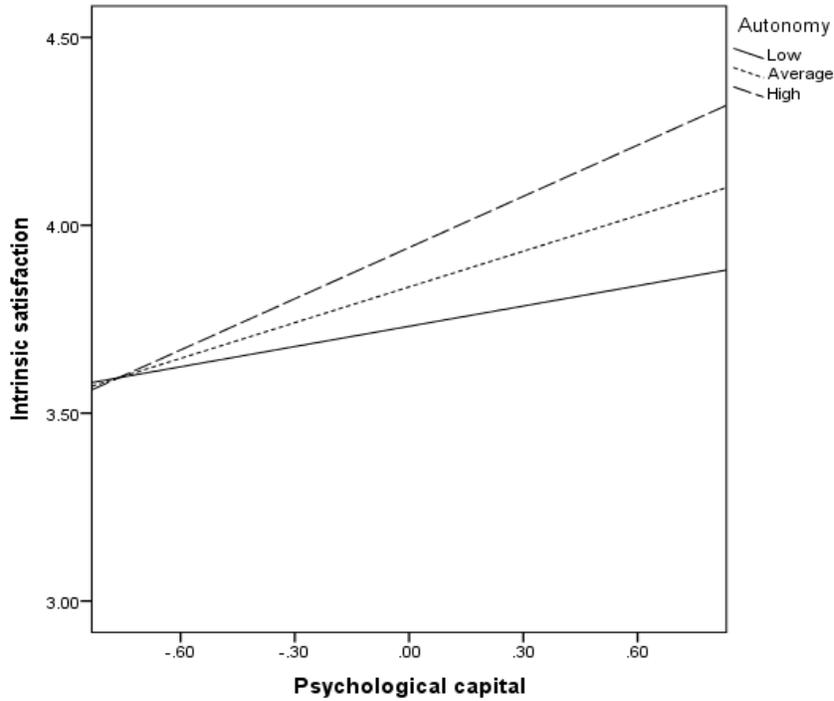


**Figure 1.** Conceptual framework

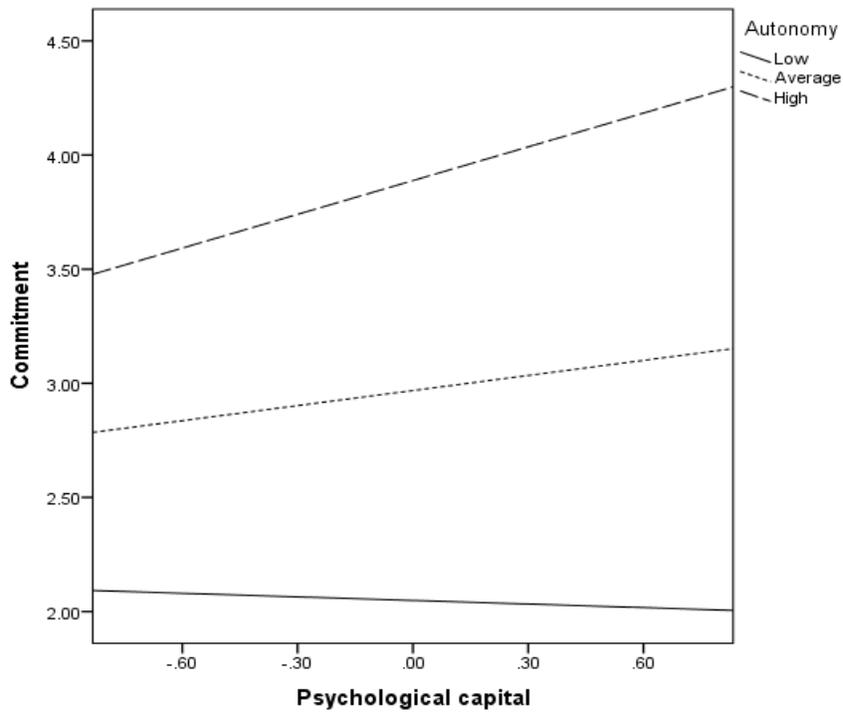


**Figure 2.** Relationships between optimism, efficacy beliefs and entrepreneurial outcomes (Study

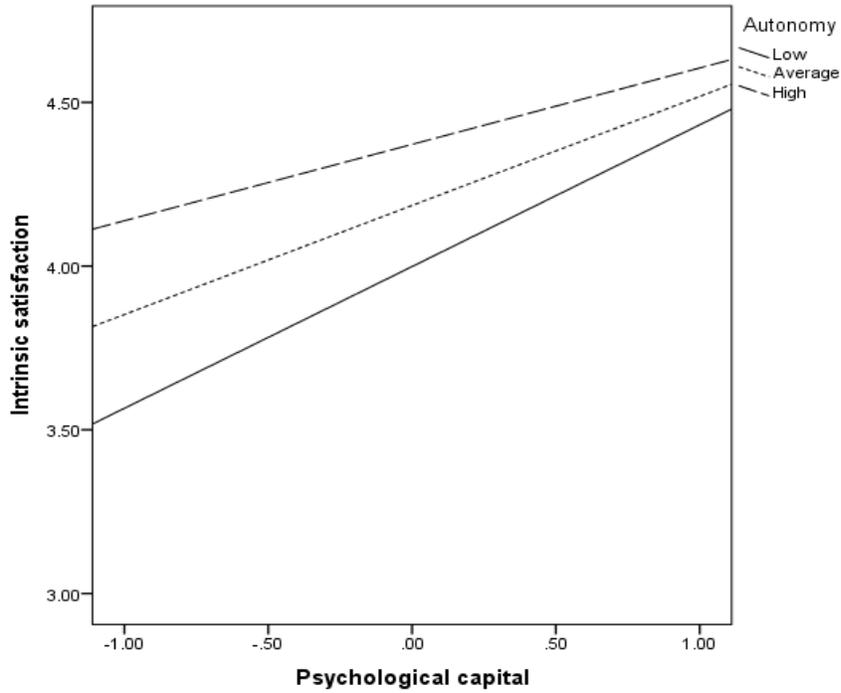
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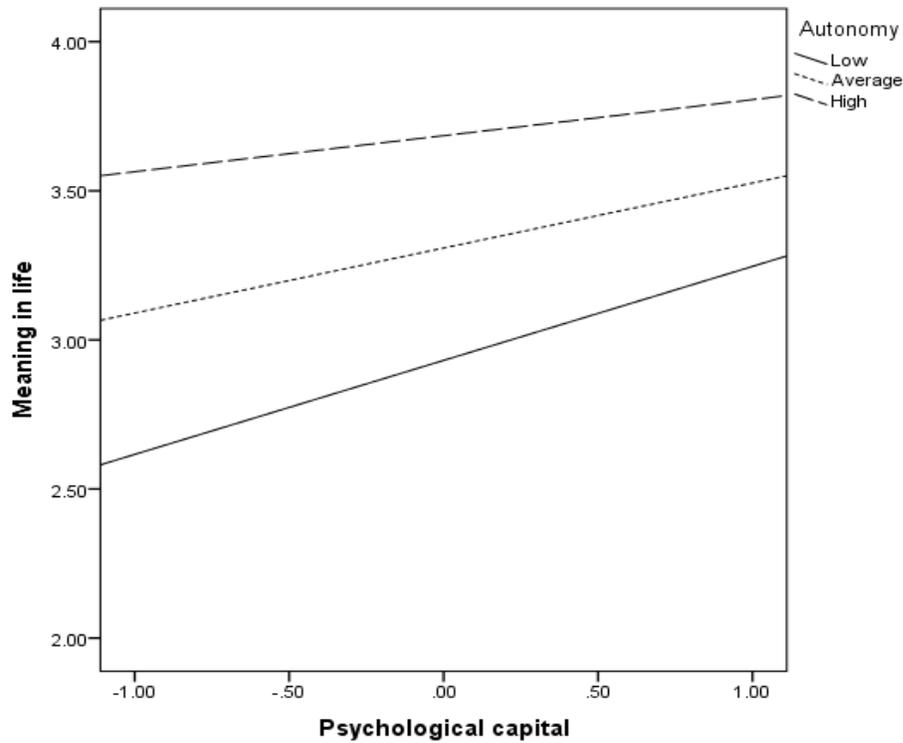
**Figure 3.** Interactive effects of psychological capital and autonomy on satisfaction (Study 2)



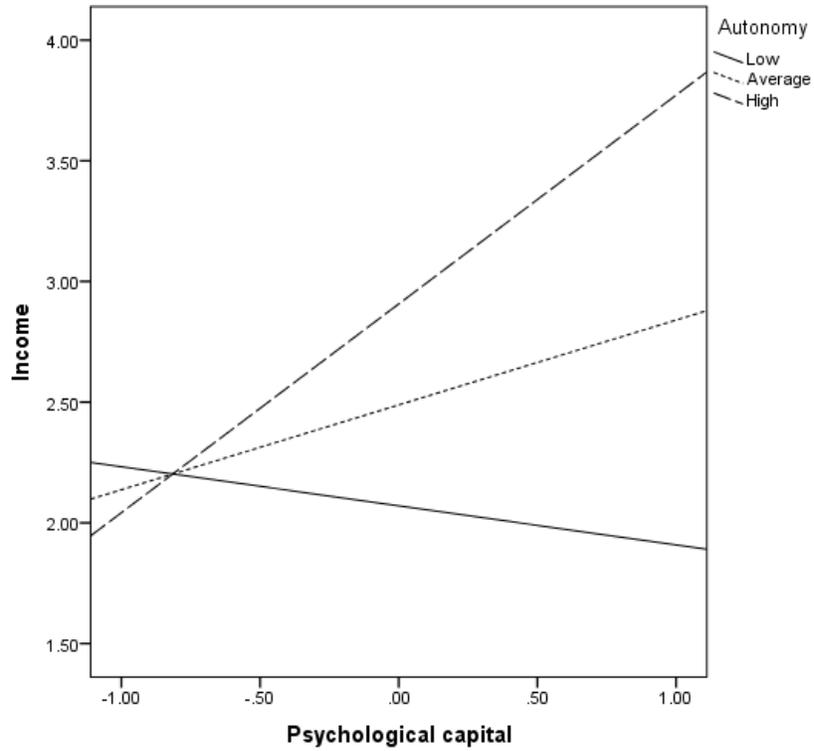
**Figure 4.** Interactive effects of psychological capital and autonomy on commitment (Study 2)



**Figure 5.** interactive effects of psychological capital and autonomy on intrinsic satisfaction (Study 3)



**Figure 6.** interactive effects of psychological capital and autonomy on meaning in life (Study 3)



**Figure 7.** Interactive effects of psychological capital and autonomy on income (Study 3)

**Manuscript #9**

**Self-Determination Theory and Persistence: A Cross-Cultural Study of Eudaimonic Well-being, Intrinsic Satisfaction and Career Commitment**

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**Abstract**

Based on Self-Determination Theory (SDT), we examine the impact of eudaimonic wellbeing and intrinsic job satisfaction on commitment to stay self- or salary-employed. Not only entry of individuals but also their commitment to remain self-employed are important. Using a cross-cultural sample of the self- and salary- employed drawn from Germany, Kenya, and Uganda, we find that the self-employed exhibit higher career commitment than the wage employed at high levels of autonomy, competence, and meaning in life across the three countries. However, the effect of relatedness and intrinsic job satisfaction varied among the countries. The implications of these results are discussed.

**Key words:**

Autonomy; commitment; competence; well-being; job satisfaction; meaning in life; relatedness; self-employment; wage-employment; persistence

## ***Introduction***

Self-employment is an important driver of economic development. At individual level, self-employment is a viable career alternative. At societal level, the resulting entrepreneurial process creates new work places (Wolff and Nivorozhkin 2012) which contribute to economic resilience, growth and development (Ireland and Webb 2007; Skriabikova, Dohmen, and Kriechel 2014; Valliere and Peterson 2009; Williams, Vorley, and Ketikidis 2013). However, the importance of this contribution varies with the level of a country's development; whereby entrepreneurship is likely to make a significant contribution to economic growth in developed countries (Valliere and Peterson 2009). Nonetheless, self-employment is increasingly playing a bigger role in development even in emerging and less developed countries (Chigunta 2016; Falco and Haywood 2016). It is the biggest form of employment in developing countries (Gindling and Newhouse 2014) and an important contributor to individuals' or household income (Ahn 2015), despite the rather low success rates (Gindling and Newhouse 2014).

For individuals and economies to enjoy the benefits of self-employment, the self-employed should be able to stick in their roles (Patel and Thatcher 2014). However, *persistence in self-employment* is as difficult as negotiating the entry phase. Statutory and startup requirements make entry phase difficult and stressful. On the other hand, and unlike in salaried employment, returns from self-employment such as earnings are not instant (Ahn 2015; Bruce and Schuetze 2004; Hamilton 2000). Yet in some cases the self-employed have to deal with losses and possibilities of failure that are often experienced by nascent ventures; in addition to several uncertainties and working long hours (Uy, Foo, and Song 2013). Such realities make persisting in self-employment rather difficult. It is thus not uncommon for the self-employed to harbor intentions to switch to wage-employment, particularly the inexperienced whose enterprises are at a nascent phase.

The current unemployment crisis is an indication to the turbulent dynamics in the labor market. The recent economic crisis stimulated the unemployment boom. Moreover, even many individuals with salaried employment are not assured of job security. Thus individuals in paid positions must remain flexible, and perhaps willing to switch to self-employment. Previous research has actually noted insecure salaried employment as a precedence for increased entry into self-employment (Kuhn and Schuetze 2001). Notably, previous research has also indicated

that the self-employed too are faced with job security challenges (Millán, Hessels, Thurik, and Aguado 2013). Nonetheless, on the societal level it is good for economies when self-employed individuals persist in the self-employment role.

While there exists extensive literature on predictors of entry into self-employment, also factors that affect success and failure or exit (Ahn 2010; Dunn and Holtz-Eakin 2000), few studies have examined persistence in self-employment. Success, however, may not necessary mean or guarantee persistence; while factors that predict entry or exit may not necessary predict persistence. Previous research has also shown differences in job outcomes for salaried and self-employed. However, these research efforts have yielded inconsistent findings. For example, some studies have found that the self-employed have lower earnings than the salary-employed (Hamilton 2000) but higher satisfaction and subjective wellbeing (Berglund, Sevä, and Strandh 2015; Stam, Sieben, Verbakel, and de Graaf 2016). Other studies show that income, satisfaction and wellbeing of the self-employed tends to improve over time (Dunn and Holtz-Eakin 1996). However, there is limited research linking these employment outcomes to commitment to self-employment roles or intentions to switch to salaried employment. The present research examines this issue, and further analyses whether psychological wellbeing, especially eudaimonia and intrinsic job satisfaction impacts persistence in the current form of employment differently for wage- and self-employed individuals (which we refer to as career commitment in this paper). Cross cultural comparisons are also made to examine whether national cultures and development contexts have an influence career commitment among both self- and salary-employed individuals.

### ***Theory and Hypotheses***

The direction for this study is developed on the foundations of SDT (Deci and Ryan 2011, 1980; Deci 1973; Ryan and Deci 2000). In over 40 years of its existence, the theory has particularly offered important insights on what motivates and sustains human behavior, particularly in career and work situations. Accordingly, human actions are caused by attitudes and goals. But goals tend to vary in nature. Some of these aspirations are internally generated by inherent interest (intrinsic motivation), while some are elicited by envisaged separable outcomes (extrinsic motivation) (Deci and Ryan 2000; Ryan and Deci 2000). SDT presents self-motivation or autonomous motivation (Deci and Ryan 2008; Gagné and Deci 2005) as most essential for

active engagement, involvement and persistence in activities; thus individuals seek work or careers that are interesting and enjoyable to them (Deci and Ryan 2000). This kind of motivation comprises of intrinsic motivation as well as some forms of extrinsic motivation whereby an individual identifies with the value of an activity and integrates it into the sense of self (Deci and Ryan 2008). In such situations, motivation for behavior is self-determined and is only enhanced or undermined by social and environmental factors. SDT posits that this is essential for psychological growth and wellbeing (Deci and Ryan 1980, 2000).

SDT further posits that the inspiration for or outcomes from engaging in actions that are interesting or enjoyable, is nourished by the desire to satisfy three basic psychological needs; particularly competence, autonomy, and relatedness (Deci and Ryan 2000). Engagement in activities inspired by self-motivation satisfies these basic psychological needs (Ryan and Deci 2000), yet conditions that facilitate satisfaction of these needs tend to enhance intrinsic motivation (Deci and Ryan 2000); thus the likelihood of commitment and persistence in the activity. These claims that satisfaction of basic psychological needs facilitates persistence in an activity or behavior is supported by empirical findings, for example on persistence in or dropping out of school (Vallerand, Fortier, and Guay 1997) or specific study areas such as persisting in the science subject (Lavigne, Vallerand, and Miquelon 2007) and persistence in post-school activities such as job search behavior and job search success (Welters, Mitchell, and Muysken 2014).

Gratification of these basic psychological needs facilitates optimal human functioning (Deci and Ryan 2008); and the striving to fulfill them therefore plays an important role in defining one's life goals or aspirations. This includes career aspirations, that individuals aspire for work that facilitates their optimal functioning; hence the relevance of psychological needs and self-determination; as an outcome of work engagements but also inspiration for those actions. Some intrinsic goals such as personal advancement, affiliation, and generativity or extrinsic goals such as wealth and fame (Deci and Ryan 2008) are some of the drivers of people's engagement in particular careers. However, it is the more autonomous or self-determined motivations that are deemed essential for satisfaction of basic psychological needs. When these needs are frustrated, the individuals will pursue extrinsic goals, which unfortunately may not foster psychological wellbeing. It is also known that individuals in self-employment,

like their wage-employed counterparts, seek outcomes beyond monetary benefits (Hamilton 2000).

From extant literature, *autonomy* is the most emphasized psychological outcome of self-employment. Generally, independence in the workplace is a basic condition that all workers tend to strive for (Otto, Rigotti, and Mohr 2013). When this need together with competence and relatedness is satisfied, greater self-motivation will result (Gagne and Deci 2005; Ryan and Deci 2000). Entry into self-employment and persisting involves difficult and frustrating situations, thus requiring higher levels of self-motivation. However, autonomy not only as a process that leads to self-motivation, but also in itself is an important attitude for entry and persistence in self-employment. Many self-employed individuals either left regular employment or have never sought salaried positions in pursuit of greater autonomy, even when self-employment involves numerous hardships (Binder and Coad 2013; Croson and Minniti 2012; Benz and Frey 2008). This is associated with procedural utility, which includes valuing both outcomes and process by which outcomes are achieved, and is obtained through self-determination and independence offered by self-employment (Benz and Frey 2008). Autonomy may be an attitude that motivates individuals into self-employment; on the other hand, we assume that the basic psychological needs for *competence* and *relatedness* too are likely outcomes of work situations and therefore motivators of persistence or desire to quit a chosen career path.

### **Career Commitment**

There is broad literature on different forms of commitment as, for example, organizational commitment (Meyer and Allen, 1991), professional commitment (Wallace 1993) and career commitment (Blau 1988, 1985; Goulet and Singh 2002). In the current study, we focus on commitment to self-employment or salaried employment. The closest to this kind of commitment is career commitment, which is considered important particularly in the development of specialized career skills as well as business and professional relations (Colarelli and Bishop 1990); hence our preference to use career commitment to refer to commitment to self- or salary-employment in the present study. Our assumption is that wage-employment or salary employment is a career path which people can chose to persist or change when they want. Congruent to SDT assumptions about autonomous motivations, career commitment has been described to involve development of career goals, identification, involvement, and engagement

in chosen career (Colarelli and Bishop 1990; Goulet and Singh 2002). This kind of commitment is somewhat different from commitment to institutions (organizational commitment) or to a specific profession (professional commitment) but is rather the commitment to long-term, self-generated career goals; yet this commitment is behaviorally displayed in the individual's persistence in pursuing goals or a subjectively envisioned career (Blau 1988; Colarelli and Bishop 1990). We specifically focus on individuals' persistence in wage-employment and self-employment career options, consistent with Blau (1985, 1988) and Carson and Bedeian (1994) definition of career commitment as a person's attitude towards or the motivation to work in a chosen vocation.

Whereas we examine commitment for both salary-employed and self-employed individuals, we are principally concerned with circumstances that would motivate change from self-employment to salaried employment. Unlike in salaried positions, the self-employed have a tough task of establishing the venture. Moreover the job gets even harder after the establishment phase, to ensure that the venture is sustained and grows, yet competing with bigger companies that are already well established in the industry or market (Patel and Thatcher 2014). Persistence in self-employment or entrepreneurship has often been studied at country or regional level (e.g. Fritsch and Mueller 2007; Fritsch and Wyrwich 2013, 2014, 2015) but rarely at the individual level. Some studies have identified culture, level of involvement of the private sector in the economy, entrepreneurship policy and support programs such as venture capital (e.g. Audretsch 2004; Audretsch, Dohse, and Niebuhr 2010; Fritsch and Wyrwich 2014b; Isenberg 2010; Lo and Teixeira 2015; Mishra and Zachary 2014) among the factors that sustain entrepreneurship or self-employment in a country or region. At the individual level instead, research has mostly focused on exit (Patel and Thatcher 2014). In their study, (Patel and Thatcher 2014) examined a number of individual attributes that play a role in a person's persistence in self-employment. In the present study, we employ SDT to assess the impact of a job's subjective outcomes (satisfaction and eudaimonic wellbeing); comparing the self-employed with the salary-employed in their intention to persist in the current form of employment.

Previous research findings on career commitment and career transitions provide some understanding of what may propel salaried employees into changing their careers or transiting into self-employment. In line with SDT, autonomy is a major factor that pulls individuals to self-

employment. The opportunity to be one's own boss, thus autonomy in work schedules, reporting, and decision making (Blanchflower 2000; Croson and Minniti 2012; Millán et al. 2013), is an attraction for individuals in salaried employment who value independence in the workplace. On the other hand, the risks of failure render self-employment insecure (Blanchflower, 2000; Millán et al. 2013); hence some self-employed would prefer salaried employment that is relatively more secure. However, with the changing nature of labor markets and organizations, it is difficult to conclude that salaried employment is more secure than self-employment. Research has also noted differences in earnings in favor of salaried employees (Binder and Coad 2013; Hamilton 2000). However, in line with SDT, intrinsic motivators such as autonomy in the work place may make self-employed individuals more committed to their present career roles than those in salaried employment.

*H1*: Self-employed individuals are more committed to their present form of employment than those in salaried employment.

### **Eudaimonic Wellbeing as Job Outcome and Motivator for Commitment**

Based on the assumptions of SDT, we posit that individuals are motivated to engage in work that enhances their wellbeing. We particularly focus on eudaimonic wellbeing as an outcome of work, but also as a motivator for commitment to or cause for exit intentions from one's current form of employment. Psychological wellbeing has been variably conceived and defined (Dodge, Daly, Huyton, and Sanders 2012). However, most studies have adopted the positivistic conception of psychological wellbeing as a group of positive attributes related particularly to mental functioning (Ryff and Keyes 1995; Ryff 1989). In broader terms, Dodge et al (2012) observe two schools of thought, one that defines psychological wellbeing as involving happiness, positive affect and low negative affect; and the other that emphasizes positive psychological functioning and human development (Doge, et al 2012). This is particularly referred to as eudaimonia (Samman 2007). It is this later viewpoint that we focus on in this study. We propose that individuals seek work that enhances their psychological wellbeing and growth. When this is realized, individuals will want to continue their work roles.

Wellbeing is often treated as an outcome in work related studies. Patel and Thatcher (2014)' study is one of the few studies on self-employment persistence, and highlights the impact of psychological wellbeing. The study emphasized the autonomy, environmental mastery and

personal growth from the factors proposed by Ryff and Keyes (1995); Ryff (1989). The present study focuses on eudaimonic wellbeing dimensions comprising of meaning in life and the three psychological needs as proposed by Samman (2007).

### *Basic Psychological Needs*

SDT claims that psychological needs are essential for understanding human behavior motivations (Deci and Ryan 2000). The expectations from engaging in particular activities are linked to the desire to satisfy these psychological needs. This is assumed to give strength to aspirations thus influencing what people chose to do and why they do it (Deci and Ryan 2000). Yet when individuals chose goals related to these psychological needs, they tend to be autonomously motivated, which in turn is associated with superior performance in tasks (Deci and Ryan 2000). When individuals evaluate certain activities as contributing to satisfying these, and consequently their wellbeing, there will be increased intentions to persist in those activities. Studies in career related activities reveal, for example, that satisfaction with the needs for autonomy and relatedness are associated with young people's persistence or exit in sporting activities (García Calvo et al. 2010); while satisfaction with the need for competence is associated with learners' persistence in a science subject (Lavigne et al. 2007). In Patel and Thatcher (2014)'s study, satisfaction with the needs for autonomy and environmental mastery (a component related to competence) predicted persistence in self-employment.

Existing literature suggests that employment contributes to satisfaction of psychological needs in different ways (Welters et al. 2014). However, research on work motivation has particularly focused on autonomy. In fact, autonomy (independence) is widely studied in entrepreneurship as a component of entrepreneurial culture and attitudes. Yet, the role of competence and relatedness cannot be undervalued (Deci and Ryan (2000)). The contemporary business and work forms that increasingly emphasize healthy working relations and networking imply the importance of the need for relatedness in pursuing career or work goals. There is limited research on differences in the extent to which self-employment and wage-employment facilitate the achievement of these needs, with exception of autonomy. Welters et al. (2014) mention that paid employment boosts satisfaction of all the three needs. Is this a reason to persist in wage-employment and therefore a predictor of lower intentions to switch to self-employment?

Can the same be said of self-employment; and can it be translated into commitment to self-employment? We review the role of each of the needs in the following paragraphs.

*Need for Autonomy*, in entrepreneurial research is often studied as an attitude or a component of the entrepreneurial culture. This is in the direction of viewing autonomy as a motivator; in line with categorization of psychological wellbeing components into motivational and social factors (Keyes, Shmotkin, and Ryff 2002). Autonomy, as conceived in SDT, involves self-organization and self-regulation or independence in pursuit of aspirations (Deci and Ryan 2000; Lumpkin, Cogliser, and Schneider 2009). Changing work trends, such as having to fulfil multiple career roles, are increasingly demanding for self-reliance (Gelderen 2010); thus independence in the workplace is also increasingly becoming an important goal (Croson and Minniti 2012; Douglas and Shepherd 2002). These studies reveal that independence is an important aspiration for many self-employed individuals and one reason that the self-employed tend to have higher job satisfaction than the salary-employed (Hundley 2001; Lange 2012; Schneck 2014). Hence the autonomy guaranteed by self-employment is not only an attraction for salary-employed to switch career roles, but also an incentive for the self-employed to persist in the entrepreneurial role (Stam, Thurik, and van der Zwan 2010). Moreover, autonomy further enhances other wellbeing aspects, particularly competence (Ryan and Deci 1987). Autonomy does not only enhance intrinsic motivation for work roles, but also complimented by competence facilitates regulation and sustaining actions (Deci and Ryan 2000). We further review the role of competence to persistence in work roles in the following paragraph.

*H2a.* Self-employed report higher levels of need for autonomy than the salary-employed.

*H2b.* Need for autonomy is positively related to career commitment.

*Competence:* An important contributor to commitment; including organizational, career and work commitment is performance. Yet performance is largely a function of competence (Bartram 2005; Greguras and Diefendorff 2009). As stated in the previous subsection, competence and autonomy are linked to enhancement of intrinsic motivation or self-determined extrinsic motivation (Deci, Ryan, Gagné, Leone, Usunov, and Kornazheva 2001; Deci and Moller 2005; Deci and Ryan 2000) which are factors for sustained action (Deci and Ryan 2000). In this direction, the literature shows that competence is essential for entrepreneurial intentions (Costa, Caetano, and Santos 2016; Reize, 2000) and sustaining a venture (Rauch and Frese 2007)

as well as success (Mary, Ngozi, Michael, and Simon 2015). Commitment to self-employment is also related to needs for personal fulfillment (Kerr and Armstrong-Stassen 2011), which may include a need for personal growth and competence. However, the differences between wage-employed and self-employed on satisfaction with the need for competence may depend on several factors including the fit between education and nature of work or business. In some professions, and increasing need for competence can be satisfied through engaging in profession-related self-employment projects, a feature that is common among freelancers for example. Yet being able to engage in different activities involved in business operation can enhance gratification of need for competence. In general terms, the satisfaction with the need for competence boosts career self-efficacy and job satisfaction (Ko 2012), which in turn can enhance the chances of commitment to one's current form of employment.

*H3a.* Self-employed report higher level of need for competence than the salary-employed.

*H3b.* Need for competence is positively related to career commitment.

*Relatedness:* Intrinsic motivation, which is the highest form of autonomous motivation, is mostly associated to autonomy and competence needs (Deci et al. 2001; Gagné and Deci 2005). However, the role of the need for relatedness in choice and persistence in career roles cannot be ignored. Person-environment theory applications to vocational behavior indicate that social interests are not congruent with entrepreneurial roles (Almeida, Ahmetoglu, and Chamorro-Premuzic 2014; Berings, De Fruyt, and Bouwen 2004; Holland 1997). Altruistic behavior may be dangerous for business (Baluku, Kikooma, and Kibanja 2016), thus a high need for relatedness can harm success and persistence in self-employment. This suggests that individuals who predominantly aspire for relatedness may do well in social entrepreneurship or salaried employment involving social interactions. Welters et al (2014) suggest that salaried employment enhances satisfaction with the need for relatedness through networking. Interactions with customers, employees and other stakeholders can boost gratification with the need for relatedness among self-employed. However, the impact of these is not yet studied. We therefore hypothesize that:

*H4a.* Self-employed report lower levels of need for relatedness than the salary-employed.

*H4b.* Need for relatedness is positively related to career commitment.

### *Meaning in Life*

Meaning in life is another aspect of eudaimonic wellbeing (Ryff 1989; Samman 2007; Steger, Frazier, Oishi, and Kaler 2006) that we investigate in the present study because of its close linkage to basic psychological needs. Meaning in life has been variously defined (Steger et al. 2006), however, the perspective that it entails purposefulness and creating direction in life (Ryff and Singer 1998, 2008) is more relevant to this paper. Both self-determination and meaning in life tend to emphasize maximization of individuals' potentials. De Klerk (2005) demonstrates that meaning in life and wellbeing impact on goal achievement, intrinsic motivation, career commitment as well as satisfaction. Steger and Dik (2009) observed that finding meaning in careers improves the overall meaning in life. From de Klerk's analogy, we propose that meaning in life will in turn increase commitment to a satisfying career role. Based on literature suggesting that self-employed tend to have higher satisfaction and subjective wellbeing (Millán et al. 2013) we hypothesize that the self-employed are more likely to experience meaning in life than the salary-employed.

*H5a.* Self-employed report higher meaning in life than the salary-employed.

*H5b.* Meaning in life is positively related to career commitment.

### **Intrinsic Job Satisfaction as Job Outcome and Motivator for Persistence**

Job satisfaction has been widely studied as an outcome of various workplace processes and behaviors including performance, pay, nature of supervision or leadership, job demands, and job attitudes such as perceived organizational support and engagement among others (Giallonardo and Wong 2010; Goh, Ilies, and Wilson 2015; Lange 2012; Smith 2015). But it has also been explored as a predictor of many work related behaviors and outcomes including commitment, turnover or turnover intentions, motivation as well as emotional reactions to workplace stimuli (Berglund et al. 2015; Lange 2012; Neubert and Halbesleben 2015). In the present study, we focus on both aspects; first job satisfaction as an outcome of salaried and self-

employment (differences in job satisfaction between the two category of workers) and secondly as a predictor of commitment to the current form of employment.

Most studies comparing satisfaction in the two groups reveal that the self-employed tend to have higher jobs satisfaction than the salary-employed (Benz and Frey 2008; Binder and Coad 2013; Blanchflower 2000; Croson and Minniti 2012; Lange 2012). Hence the key issue is what explains the differences in satisfaction. Towards this, there is empirical evidence suggesting that there are differing determinants of satisfaction among the two groups; for example autonomy and type of job for the self-employed in contrast to job security for the salary-employed (Conen, Schippers, and Buschoff 2016; Millán et al. 2013). We further explore what this means for intentions to persist or exit self-employment, or to transit into or from self-employment.

One of the factors is whether people are able to achieve what they expect from their employment. Georgellis and Yusuf (2016) observe that individuals tend to have higher job satisfaction in the period following transition from salaried to self-employment; but the satisfaction tends to decline when expectations are not realized. One such expectation, in line with SDT assumptions, is autonomy and flexibility at the job, which is greater for the self-employed than the salary-employed (Hundley 2001) and explains the high job satisfaction among the self-employed (Benz and Frey 2008; Lange 2012). Such outcomes enhance the likelihood of continuing in self-employment.

For individuals in salaried employment, satisfaction may also be derived from a number of factors, such as those mentioned at the start of this subsection. However, they have an edge over the self-employed regarding pay. Research has showed that the self-employed tend to earn lesser money as well as other incentives such as insurance that the self-employed may not have (Hamilton 2000; Kawaguchi 2002). Thus, in terms of income and economic wellbeing, self-employment seems to be more beneficial for less skilled (Hamilton 2000; Lofstrom 2013) who may not find well-paid positions. However, there are also empirical findings suggesting that some categories of self-employed earn more money than the salary-employed (Conen et al. 2016). According to the self-determination perspective, money and such other incentives are separable outcomes and therefore may not cause autonomous motivation to remain in a given career role. Moreover, the self-employed tend to have more optimism for better outcomes. These

in addition to the satisfaction resulting from autonomy at the workplace are likely to increase persistence in a career role.

*H6a:* The self-employed report higher intrinsic job satisfaction than the salary-employed.

*H6b:* Job satisfaction is positively related to career commitment.

Generally, we expect commitment to one's current form of employment to be a function of both job satisfaction and perceived contribution of present career roles to eudaimonic wellbeing. We focus on both constructs because they are believed to have a reciprocal causal relationship (Berglund et al. 2015). We further postulate that career commitment varies between salary and self-employed. We therefore investigate the form of employment itself as a moderator of impact of wellbeing and satisfaction on career commitment. This is based on Conen et al (2016) finding that, solo self-employment, for example, has a negative effect on the probability of entering salaried employment.

We use a cross-cultural sample to test our assumptions. We therefore take into consideration the national differences, which may be based on the development context and national cultures. Previous research has highlighted characteristics of entrepreneurial cultures (Hayton and Cacciotti 2013; Krueger, Liñán, and Nabi 2013). Moreover, it is believed that the benefits of self-employment and failure vary between developed and less developed countries (Gindling and Newhouse 2014; Valliere and Peterson 2009). However, from the assumptions of SDT, it appears that psychological needs, meaning in life and intrinsic job satisfaction are universal work outcomes, that everyone seeks. We therefore expect no or marginal differences in the way these work outcomes affect career commitment between more and less developed countries.

H7a. The impact of eudaimonic wellbeing dimensions on career commitment is higher among the self-employed than the salary-employed in all the countries.

H7b. The impact of intrinsic job satisfaction on career commitment is higher among the self-employed than the salary-employed in all the three countries.

## ***Methods***

### **Sample**

We tested our hypotheses using data from a sample of 869 young self-employed and salary-employed individuals from three countries; Uganda, Kenya, and Germany. For Uganda, a total of 409 participants responded fully to the survey questionnaire. These included 150 self-employed (88 males, 70 females) and 251 salary-employed (133 males, 118 females). The Kenyan sample comprised of 285 individuals who fully responded to the questionnaire; including 136 self-employed (62 males, 74 females) and 149 salary-employed (74 males, 75 females). To obtain the German self-employed sample, an invitation for participation was posted on several social networks for self-employed people, including freelancers. This process resulted into 87 completed surveys (40 males, 47 females). The salary-employed sample was also obtained through online invitation resulting into 88 completed surveys (29 males, 59 female). The average age of the study sample was 24.96 years ( $SD = 1.02$ ). On the overall, the sample was virtually equally distributed between males (49%) and females (51%). Regarding the education levels, 54.3% had obtained a university degree (bachelor, diploma/ master), 26.9% had completed professional courses at diploma or certificate level, 11.7% had completed high school, and only 7.0% had completed lower level or no educational certificates.

## Measures

### *Eudaimonic wellbeing*

As conceptualized in our theoretical framework, eudaimonic wellbeing comprises of the three basic psychological needs (Ryan, Huta, and Deci 2013) plus meaning in life as proposed by Samman (2007). To measure these components, we adopted a measure for psychological wellbeing constituting of the short form of Deci and Ryan Basic Psychological Needs scale and short form of Steger's meaning in life questionnaire (see: Samman 2007; p.464-465). The questionnaire comprises of 10 items (3 for autonomy, 3 for competence, 1 for relatedness, and 3 for meaning in life). All items are measured on a 4-point scale from 1 (not at all true) to 4 (completely true). For the present study however, we adopted only 2 items for both autonomy and competence aspects, given that the dropped items also loaded highly on meaning in life. Sample items on each aspect read: "I feel like I can pretty much be myself in daily situations" (autonomy); "most days I feel a sense of accomplishment from what I do" (competence); "I get along well with people I come into contact with" (relatedness); and "I have discovered a

satisfying life purpose” (meaning in life). Reliability was evaluated using Cronbach’s alpha coefficients, which ranged from .75 to .90 (Table 1) and considered adequate (Nunnally 1978).

*Intrinsic Job Satisfaction:* This variable was measured using a 6-item scale from the revised subscales of the short form of Minnesota satisfaction questionnaire (Hirschfeld 2000). The seventh item of the scale “the chance to do things for other people” was dropped because of low loading. These were measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A sample item reads “the chance to do different things from time to time”. Examination of reliability revealed a Cronbach alpha coefficient of .79.

*Career Commitment:* This is the dependent variable of the present study. We adopted the career commitment scale (Blau 1988, 1985). The 7-item scale measures an individual’s commitment to his/ her career field or occupation. We adopted four of the items to fit to the purpose of the current study of measuring commitment one’s current form of employment. A sample item reads “self-employment is the ideal vocation for a life work” (for self-employed sample), or “A salaried position is ideal for a life work (for salary-employed sample). Cronbach’s alpha test revealed a satisfactory coefficient of .84.

### **Analytical Approach**

To rule out that multicollinearity might influence the findings, we conducted a multicollinearity check by assessing the variance inflation factor values. These ranged from 1.08 to 1.75; which are below the cutoff mark of 10 (Hair, Black, Babin, Anderson, and Tatham 2006). To test our hypotheses, we used PROCESS macro version 2.16.3 SPSS (Hayes 2013). We particularly applied model 3, which concerns moderated moderation effects to consider both form of employment and country. We ran a regression model for each of the wellbeing aspects and intrinsic job satisfaction; each including form of employment (first moderator) and country (second moderator). In addition, we applied sample bootstrapping at 5,000 and 95% confidence interval as recommended by Hayes (2013).

### **Results**

Table 1 contains the correlation matrix as well as the descriptive statistics for the eudaimonic wellbeing constructs, intrinsic job satisfaction and career. The correlation matrix shows that all aspects of eudaimonic wellbeing except need for relatedness were correlated to

career commitment. Intrinsic job satisfaction was also correlated to career commitment. We conducted a MANOVA to establish the differences between the different groups in our sample (based on our moderator and control variables) regarding the predictor variables and career commitment. Results (Table 2) show that German participants reported significantly higher levels of need for autonomy, meaning in life, intrinsic job satisfaction and career commitment than the Ugandan and Kenyan participants. Kenyan participants reported significantly higher levels of need for relatedness. Although Ugandans had a higher mean on need for competence, the differences were not significant. In relation to differences between self- and salary-employed; the self-employed had higher mean scores on intrinsic job satisfaction (*H6a* is confirmed) and career commitment (confirming *H1*), while the salary-employed had higher mean scores on autonomy (*H2a* is not supported), competence (*H3a* is not supported), and meaning in life (*H5a* is not supported).

*Insert Table 1 around here*

*Insert Table 2 around here*

The regression models in Table 3 enabled us to test for the effects of the various aspects of eudaimonic wellbeing plus intrinsic job satisfaction on career commitment. We performed a separate model of each predictor (needs for autonomy, competence, relatedness, as well as meaning in life and intrinsic job satisfaction). Additionally, each model also involved a three-way moderation test for the interactive effects of these constructs with form of employment (moderator 1) and country (moderator 2) on career commitment. Across the five models, control variables had differing effects on career commitment. The effects of sex and level of education were consistently not significant. However, age was significant in the models for autonomy ( $B = .09$ ,  $CI = .01$  to  $.17$ ) and competence ( $B = .09$ ,  $CI = .00$  to  $.18$ ). Similarly, our moderators had differing effects on commitment across the models. Form of employment had a positive significant effect in model 5, containing intrinsic job satisfaction as independent variable, ( $B = .26$ ,  $CI = .12$  to  $.40$ ), implying career commitment to be higher among self-employed. Country had positive significant effects in models 1, 2, and 3. In these models, commitment was thus higher among German participants when needs for autonomy, competence and relatedness are the independent variables.

In model 1, we tested for the effects of autonomy as well as its interaction with form of employment and country on career commitment. As hypothesized (*H2b*), need for autonomy was positively related to career commitment ( $B = .29$ ,  $CI = .16$  to  $.41$ ). The interaction effect of need for autonomy and form of employment was negative ( $B = -.48$ ,  $CI = -.74$  to  $-.22$ ), but the interaction effect of need for autonomy and country as well as the three-way interaction effect were not significant. However, probing of these moderations revealed that there were interactive effects of need for autonomy and form of employment for all three countries; Uganda ( $B = -.42$ ,  $CI = -.80$  to  $-.05$ ), Kenya ( $B = -.48$ ,  $CI = -.74$  to  $-.22$ ), and Germany ( $B = -.53$ ,  $CI = -.89$  to  $-.18$ ). These indicate that career commitment was higher for wage-employed at low levels of need for autonomy for participants in all the countries. However, commitment is superior for the self-employed, but it is higher for Germany.

*Insert table 3 around here*

Model 2 regards the effects of need for competence and its interaction with form of employment and country on career commitment. Results of this model suggest that need for competence was positively related to commitment to present form of employment ( $B = .36$ ,  $CI = .23$  to  $.31$ ), hence *H3b* is supported. The interaction of need for competence with form of employment also had a significant effect on career commitment ( $B = -.44$ ,  $CI = -.72$  to  $-.17$ ), however the interaction with country as well the three-way interaction had non-significant effects. Probing of the three-way moderation revealed that interactive effects of need for competence and form of employment had similar, but significant effects on career commitment for all the countries ( $B = -.44$  for Uganda,  $B = -.44$  for Kenya, and  $B = -.45$  for Germany). Overall, Figure 2 shows that career commitment is higher for self-employed than salary-employed at high level of need for competence.

In line with *H4b*, results of model 3 reveal that need for relatedness was positively related to career commitment ( $B = .19$ ,  $CI = .05$  to  $.34$ ). The interaction of need for relatedness with form of employment and with country had no significant effects. Probing of these interactions, as can also be seen in Figure 3, reveal that relatedness was significantly related to career commitment only for the self-employed in Uganda ( $B = .64$ ,  $CI = .15$  to  $1.13$ ) and Kenya ( $B = .35$ ,  $CI = .04$  to  $.66$ ); but not for self-employed in Germany and salary-employed in all three

countries. However, the three-way interaction of related, form of employment and country was significant ( $B = .50$ ,  $CI = .18$  to  $.82$ ).

*Insert figures 1-5 around here*

We investigated the effect of the last aspect of eudaimonic wellbeing on career commitment in model 4. Our hypothesis ( $H5b$ ) of a positive relationship is supported ( $B = .38$ ,  $CI = .31$  to  $.45$ ). The interaction of meaning in life with form of employment also had a significant, but negative effect ( $B = -.57$ ,  $CI = -.70$  to  $-.45$ ), thus career commitment was higher for self-employed. However, the interaction with country as well as the three-way interaction had marginal effects on career commitment. The mode further reveals that the effect of meaning on life on career commitment were significant for all groups, except the salary-employed in Uganda and Germany. This is also depicted in Figure 4, which shows that career commitment is considerably higher for self-employed at high level of meaning in life.

With exception for need for relatedness (model 3), all the models on different aspects of eudaimonic wellbeing; need for autonomy (model 1), need for competence (model2) and meaning in life (model 4) support our hypothesis that the impact of eudaimonic wellbeing dimensions on career commitment is higher among the self-employed in all the countries ( $H7a$ ).

The last model regards the effect of intrinsic job satisfaction on career commitment; and the differential impact between forms of employment and country. The results support our hypothesis ( $H6b$ ) that intrinsic job satisfaction is positively related to career commitment ( $B = .55$ ,  $CI = .43$  to  $.67$ ). Interactive effects of intrinsic job satisfaction with form of employment ( $B = -.37$ ,  $CI = -.63$  to  $-.11$ ) and with country ( $B = .19$ ,  $CI = .05$  to  $.34$ ). In addition, the three interaction of intrinsic job satisfaction, form of employment and country had a significant effect ( $B = -.34$ ,  $CI = -.66$  to  $-.03$ ). The probing of these interactions show that the impact of intrinsic job satisfaction on career commitment was highest among self-employed in Germany ( $B = 1.05$ ,  $CI = .82$  to  $1.29$ ) and lowest among the salary-employed in Uganda ( $B = .36$ ,  $CI = .22$  to  $.49$ ). These interactive effects are visualized in Figure 5, which shows that commitment was higher among self-employed and very high levels of intrinsic job satisfaction for German and Kenyan participants. For Ugandan participants, however, the level of commitment among self-employed was mostly lower than for salary-employed. Hence  $H7b$  is not supported. Generally, our results

suggest that intrinsic job satisfaction is an important factor for career; but more importantly among the self-employed than the salary-employed.

## *Discussion*

The current study focuses on the subjective outcomes of employment, and their impact on career commitment (commitment to stay in self- or salaried employment). Patel and Thatcher (2014) point out that persistence in entrepreneurial roles has largely been ignored in entrepreneurship research. Moreover, persistence is essential to the successful entrepreneurship given that expected outcomes are likely to accrue in the long run than in the short term. However, we propose that the psychological outcomes realized even at that starting phase can influence people's commitment to self-employment. Our basic assumption, in line with SDT (Deci and Ryan 2011; Deci and Ryan 2000; Ryan and Deci 2000; Ryan et al. 2013), is that work provides an avenue for fulfilling basic psychological needs (autonomy, competence, and relatedness); which together with meaning in life constitute eudaimonic wellbeing (Ryan et al. 2013; Samman 2007). Satisfaction with these aspects of wellbeing is related to intrinsic job satisfaction and enhances commitment to one's current form of employment. Therefore, the self-employed who are less satisfied would be more willing to switch to salaried employed and vice versa.

The statistical analyses conducted in this paper reveal several results. First, our findings show that self-employed individuals are less committed to their chosen form of employment than their counterparts in salaried employment are. This is particularly true for Kenya and Uganda. This can be explained by the nature of businesses the self-employed operate and the outcomes of these businesses. Our sample particularly comprised of self-employed who own small businesses. Literature suggests that such businesses are affected by a number of factors but importantly low capital and profitability (Bjornlund, van Rooyen, and Stirzaker 2017; Tran, Abbott, and Jin Yap 2017). This can eventually lead to intentions to quit business and seek opportunities in salaried employment. In addition, in the context of unemployment, self-employment may for many individuals be a career they opt for involuntarily. For such individuals, salaried employment may remain their preferred form of employment whenever there are opportunities, hence a lowered commitment to self-employment results.

According to our results it seems that aspects of eudaimonic wellbeing are important for career commitment. This applies to both salaried and self-employment. However, the effects are more remarkable for the self-employed, except for relatedness, whereby its impact on career commitment did not significantly vary among the two forms of employment. These findings are consistent with the SDT assumption that satisfaction with psychological needs are essential outcomes of work which propel intrinsic motivation (Gagné and Deci 2005; Milyavskaya and Koestner, 2011; Ryan and Deci 2000). Our findings also support extant literature suggesting that the level to which these aspects of eudaimonic wellbeing are satisfied is linked to persistence in work activities (Lavigne et al. 2007; Vallerand et al. 1997); but most relevant to our study is that the limited research on persistence in self-employment shows similar empirical evidence (Hackett 2015; Patel and Thatcher 2014). Basing on SDT, when the self-employment activities provide avenues for satisfying these needs, the motivation increases, which in turn is a driver for commitment and persistence in self-employment (Barba-Sánchez and Atienza-Sahuquillo 2017).

In line with Keyes et al. (2002) categorization of psychological wellbeing aspects into motivational and social dimensions, previous research has particularly highlighted the need for autonomy as a predictor of entrepreneurial intentions and entry. However, it is a goal that both self- and salary-employed individuals seek to achieve in the workplace (Croson and Minniti 2012; Douglas and Shepherd 2002). When this goal is achieved, it motivates persistence in a given behavior (Deci and Ryan 2000; Ryan and Deci 2000). This link is particularly emphasized in entrepreneurial activities (Patel and Thatcher 2014; Stam et al. 2010). Our findings further show that satisfaction of this aspect of psychological wellbeing is related to commitment to salaried employment as well. Nonetheless, the impact is indeed higher among the self-employed. Beyond need for autonomy, our study provides empirical evidence that other aspects of eudaimonic wellbeing are also important for commitment to self-employment or wage-employment. We particularly draw attention to meaning in life, which showed the highest effect on career commitment in our sample; with marginal variation among countries. This supports Steger and Dik (2009) finding that meaning in life is associated with intrinsic motivation, satisfaction and wellbeing. As we hypothesized, however, this wellbeing construct seems more important for the self-employed, given that their career commitment was highest at high level of meaning in life while commitment among the wage-employed did not vary with scores on meaning in life (refer to Figure 4).

However, the role of need for competence and need for relatedness should not be neglected. Previous research has particularly posited that competence enhances motivation and sustained action (Deci et al. 2001; Deci and Moller 2005; Deci and Ryan 2000). Previous research also links competence to sustaining a venture and success (Mary et al. 2015; Rauch and Frese 2007). Our results clarify that fulfillment of the needs for competence is related to commitment to self-employment. Although our results (refer to Figure 2) show that its impact on commitment to salaried-employment is minimal. This is somehow in agreement with extant literature revealing that feelings of competence is related to entrepreneurial intentions (Costa et al. 2016; Reize 2000). We can therefore posit that whereas the self-employed who feel satisfied as regards to their need for competence prefer to remain in self-employment. This seems to be the case in at least the three countries included in our study. Regarding need for relatedness, previous research largely suggests that it is not fitting to entrepreneurial roles (e.g. Almeida et al., 2014; Baluku et al. 2016), except for its relevance to building social capital (Baron and Markman 2003). Conversely, our findings demonstrate that fulfillment of the need for relatedness is particularly important for commitment to self-employment. Thus, a feeling of dissatisfaction in regard to this need may cause transition to salaried employment. However, this seems to be tied to culture as explained in the succeeding paragraph.

Our cross-cultural analysis indicates that the effects of eudaimonic wellbeing dimensions on career commitment are relatively consistent across the three countries. Thus culture seems to have minimal effects on this relationship, except for the dimension of need for relatedness. Career commitment among the self-employed seems to be lower at low levels of relatedness, but higher than for wage-employed at high levels of relatedness. On the other hand, for Germany, the self-employed reported higher commitment to their employment than those in salaried positions, regardless of level of relatedness. Generally, level of commitment varied marginally with level of need for relatedness. In our view, this could be the effect of cultural differences. Given the collectivistic nature of East African countries (Ma and Schoeneman 1997), relatedness could be an important need at the workplace, that could determine whether individuals develop commitment towards their employment or seek for opportunities in another form of employment. Our results show that this is true specifically for individuals in self-employment, whose commitment to their roles as self-employed were low when their level of need for relatedness in low. The trend for Germany is quite different: Germany is more individualistic (Fernandez,

Carlson, Stepina, and Nicholson 1997); whereby interpersonal relations are generally loose; consequently relatedness could have a minor effect on commitment to one's current form of employment. In addition, Germany scores high on risk aversion and ambiguity intolerance. Therefore, many individuals are less willing to trade the security salaried employment offers to switch to self-employment, which is in cases considered precarious employment. On the overall, previous research shows that the self-employed experience less relatedness than those in salaried employment. Given that the majority of the sample were from Kenya and Uganda, this could explain why we found that self-employed were less committed to their form of employment.

Similar to the effects of eudaimonic wellbeing dimensions on career commitment, our results show that commitment is also significantly affected by level of intrinsic job satisfaction. Again, this applied to both salaried and self-employed; although with variations among countries. Particularly, career commitment was higher for self-employed at very high levels of satisfaction in Germany and Kenya. Contrary, the self-employed in Uganda expressed lower commitment than the salary-employed at all levels of satisfaction; thus were more likely to seek opportunities in salaried employment than their counterparts in Germany and Kenya. This explains the often reported high entrepreneurial exits in Uganda, despite the country having high entrepreneurial potential (Namatovu, Balunywa, Kyejjusa, and Dawa 2010). In economic terms, the relationship between intrinsic job satisfaction and commitment to the current form of employment may be affected by incomes (the extrinsic factors). It is notable that the majority of self-employed in developing countries operates small businesses, thus implying lower profitability and incomes (Bjornlund et al. 2017; Gindling and Newhouse 2014) than their counterparts in salaried employment. In such contexts, there are high likelihoods of self-employed individuals to develop intentions to switch to salaried employment.

### **Limitations and Directions for Future Research**

There are a number of limitations with respect to the present study. First, our study examines career commitment (commitment to self- or salaried employment) among young people (average age is approximately 25 years) in Germany and East African countries (Uganda and Kenya). However, we believe that the differences in economic contexts make comparisons between the two regions less effective. Germany is among the most developed countries with low unemployment rates (Hoffmann and Lemieux 2016), hence self-employment among young

people is rather voluntary. On the other hand, East Africa has very high youth unemployment rates (Chigunta 2016), hence self-employment in this context is rather involuntary. Also there are differences in startup resources and income from self-employment (Gindling and Newhouse 2014). Beyond the cultural differences between these regions, we believe that these economic factors could have significant effects on commitment to self-employment or the intentions of salary-employed individuals to switch to self-employment. We propose that future research should investigate the impact of these factors; particularly the effect of voluntary versus involuntary entry into self-employment on persistence.

The second limitation regards the measurement for the need for relatedness construct. We adopted a measure that uses a single-item. This presents a challenge of a possibility of inadequate psychometric properties of the measure (Miller, Reynolds, Ittenbach, Luce, Beauchamp, and Nelson 2009). Future research measuring relatedness could address this challenge by adopting long versions of measures.

Thirdly, our study is further limited by the use of cross sectional survey data. Whereas our data has strengths combining cross cultural with multi-group samples, we only conducted the measurements once. Therefore, we could not measure how eudaimonic wellbeing, intrinsic job satisfaction and career commitment co-vary with time and changing circumstances. We propose that future research could benefit from longitudinal or experimental approaches; where the changes in scores on these constructs can be observed with changes in circumstances. This can also facilitate measurement of whether these predictors are related to success in or exit from the current form of employment.

Finally, future research could consider more factors that might influence commitment to especially self-employment. Factors such as size and source of start-up capital, time spent in self-employment, nature and size of the venture are likely to influence outcomes and consequently affect persistence. The present study only considered country differences and form of employment as possible moderators. We believe that this initial effort provides a good basis for future investigations of more moderating factors.

### **Practical Implications**

Our findings regarding commitment to one's current form of employment has implications for research, the self-employed, entrepreneurship intervention initiatives, and employers who seek to retain their entrepreneurial employees. Entrepreneurial research has so far emphasized factors for entry, success, failure and exit. However, Patel and Thatcher (2014) observe that there is limited focus on factors for persistence. This study makes contribution to building a body of knowledge on persistence in entrepreneurial roles. We hope that our contribution can motivate more research in this field.

We have already emphasized that the real benefits of self-employment to individuals and the economy are less likely to be realized at the initial stages of the venture. Unlike the older individuals who enter self-employment after retirement or for other reasons, the young individuals too, become self-employed either voluntarily or involuntarily. Overall, they are more likely to seek opportunities in salaried employment when the expected outcomes are not realized. Our study highlights that beyond the economic benefits of self-employment, psychological wellbeing and intrinsic job satisfaction are essential in sustaining individuals in self-employment. This has implications for the self-employed as well entrepreneurship promotion initiatives. A key question that arises is what can be done by individuals and support organizations to enable the nascent young self-employed to realize these psychological outcomes in the short-term.

Concerning employers, Hsu, Shinnar, Powell, and Betty (2017) have already emphasized the need for organizations to establish structures that are attractive to entrepreneurs that would motivate them to stay in the organization. Our study highlights the importance of eudaimonic wellbeing and intrinsic job satisfaction to career commitment among enterprising individuals. An individual would have higher intention to leave the company to start his/ her own venture if the job is not facilitating the satisfaction of psychological wellbeing and meaning in life or less intrinsically satisfying. This knowledge is important to employers who seek to retain their enterprising employees, to understand what motivates them and how they can enhance their commitment.

## **Conclusions**

Entrepreneurial efforts are indisputably essential for economic development and resilience. The consensus that entrepreneurship is a key driver of development, coupled with changing dynamics in the labor market, has resulted into increased research as well as self-

employment promotion initiatives. Compared to salaried employment, the benefits of self-employment to individuals and the economy occur in the long rather than the short term. Therefore, persistence is critical to the self-employed. Our study examines this persistence in form of career commitment; that is, willingness of self- and salary-employed to stay in their current forms of employment. Despite the importance of persistence in self-employment or entrepreneurial activities, this construct is insufficiently examined in entrepreneurship research. We based our study on SDT to examine the psychological outcomes of work that might increase career commitment. In support of the assumption of this theory, we have demonstrated that eudaimonic wellbeing is an important outcome that individuals seek from their work. Each of the dimensions of this form of wellbeing as well as intrinsic job satisfaction affects commitment. The effect is particularly higher for the self-employed such that the higher the level of fulfillment, the higher the intention to remain in self-employment. Moreover, there seems to be only marginal variations among countries which demonstrates the importance and generalizability of these factors across cultures.

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**Table 1**

**Descriptive statistics and correlations of variables**

Variables	M [min, max]	SD	$\alpha$	A	B	C	D	E	F
A. Autonomy	3.20 [1, 4]	.71	.75	1.00					
B. Competence	3.21 [1, 4]	.68	.76	.52***	1.00				
C. Relatedness	3.07 [1, 4]	.81	---	.15***	.24***	1.00			
D. Meaning in life	2.76 [1, 4]	1.06	.90	.36***	.47***	.21***	1.00		
E. Intrinsic job satisfaction	3.69 [1, 5]	.73	.79	.38***	.41***	.15***	.33***	1.00	
F. Commitment	3.11 [1, 5]	1.04	.84	.15***	.20***	.06	.45***	.31***	1.00

\*\*\*  $p < .001$

**Table 2**

**MANOVA results for differences between groups on predictor and outcome variables**

		Country		Form of employment			Sex			Age			Education		
		<i>M (SD)</i>	<i>F</i>		<i>M (SD)</i>	<i>F</i>		<i>M (SD)</i>	<i>F</i>		<i>M (SD)</i>	<i>F</i>		<i>M (SD)</i>	<i>F</i>
Autonomy	Uganda	3.15(.73)	21.97***	Self	3.13(.57)	8.01**	Male	3.20(.76)	.00	15 - 17	3.19(.88)	8.49***	Below HS	2.72(.80)	40.02***
	Kenya	3.10(.65)		Salaried	3.26(.79)		Female	3.20(.66)		18 - 21	3.17(.70)		HS	3.28(.57)	
	Germany	3.51(.65)		22 - 25	3.08(.62)		Degree	3.40(.62)							
				26 - 30	3.31(.80)										
31 - 35	3.69(.47)														
36+	3.35(.85)														
Competence	Uganda	3.23(.70)	.37	Self	3.13(.54)	10.10**	Male	3.24(.71)	2.37	15 - 17	2.87(.75)	14.04***	Below HS	2.81(.74)	22.78***
	Kenya	3.18(.65)		Salaried	3.27(.77)		Female	3.17(.66)		18 - 21	3.05(.69)		HS	3.10(.59)	
	Germany	3.21(.70)		22 - 25	3.14(.67)		Degree	3.04(.70)							
				26 - 30	3.35(.68)										
31 - 35	3.78(.38)														
36+	3.31(.57)														
Relatedness	Uganda	3.08(.85)	4.90**	Self	3.10(.55)	.76	Male	3.08(.84)	.07	15 - 17	3.22(.89)	6.42***	Below HS	2.85(.81)	3.19*
	Kenya	3.15(.75)		Salaried	3.05(.96)		Female	3.06(.77)		18 - 21	2.93(.83)		HS	3.04(.66)	
	Germany	2.91(.78)		22 - 25	2.97(.76)		Degree	3.00(.82)							
				26 - 30	3.28(.75)										
31 - 35	3.31(1.10)														
36+	3.04(.60)														
Meaning in life	Uganda	2.77(1.05)	30.57***	Self	2.27(1.18)	177.43***	Male	2.81(1.03)	1.93	15 - 17	3.19(.82)	20.45***	Below HS	2.40(1.05)	10.86***
	Kenya	2.46(1.15)		Salaried	3.25(.76)		Female	2.71(1.09)		18 - 21	2.71(.94)		HS	2.43(1.16)	
	Germany	3.23(.70)		22 - 25	2.43(1.13)		Degree	2.66(.97)							
				26 - 30	3.07(.95)										
31 - 35	3.52(.54)														
36+	3.28(.70)														
Intrinsic job satisfaction	Uganda	3.55(.73)	57.77***	Self	3.94(.52)	90.67***	Male	3.70(.74)	.30	15 - 17	3.73(.82)	5.63***	Below HS	3.42(.76)	17.93***
	Kenya	3.58(.67)		Salaried	3.49(.81)		Female	3.67(.73)		18 - 21	3.76(.73)		HS	3.92(.53)	
	Germany	4.19(.62)		22 - 25	3.59(.75)		Degree	3.46(.68)							
				26 - 30	3.69(.69)										
31 - 35	3.74(.69)														
36+	4.31(.55)														
Commitment	Uganda	3.05(.98)	36.33***	Self	3.15(1.13)	1.04	Male	3.14(1.06)	.80	15 - 17	3.12(.88)	6.58***	Below HS	2.96(.84)	4.12**
	Kenya	2.85(.90)		Salaried	3.08(.96)		Female	3.08(1.02)		18 - 21	3.11(1.02)		HS	3.04(1.07)	
	Germany	3.65(1.17)		22 - 25	2.99(.98)		Degree	2.95(.92)							
				26 - 30	3.12(1.10)										
31 - 35	3.35(.97)														
36+	4.13(1.15)														

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

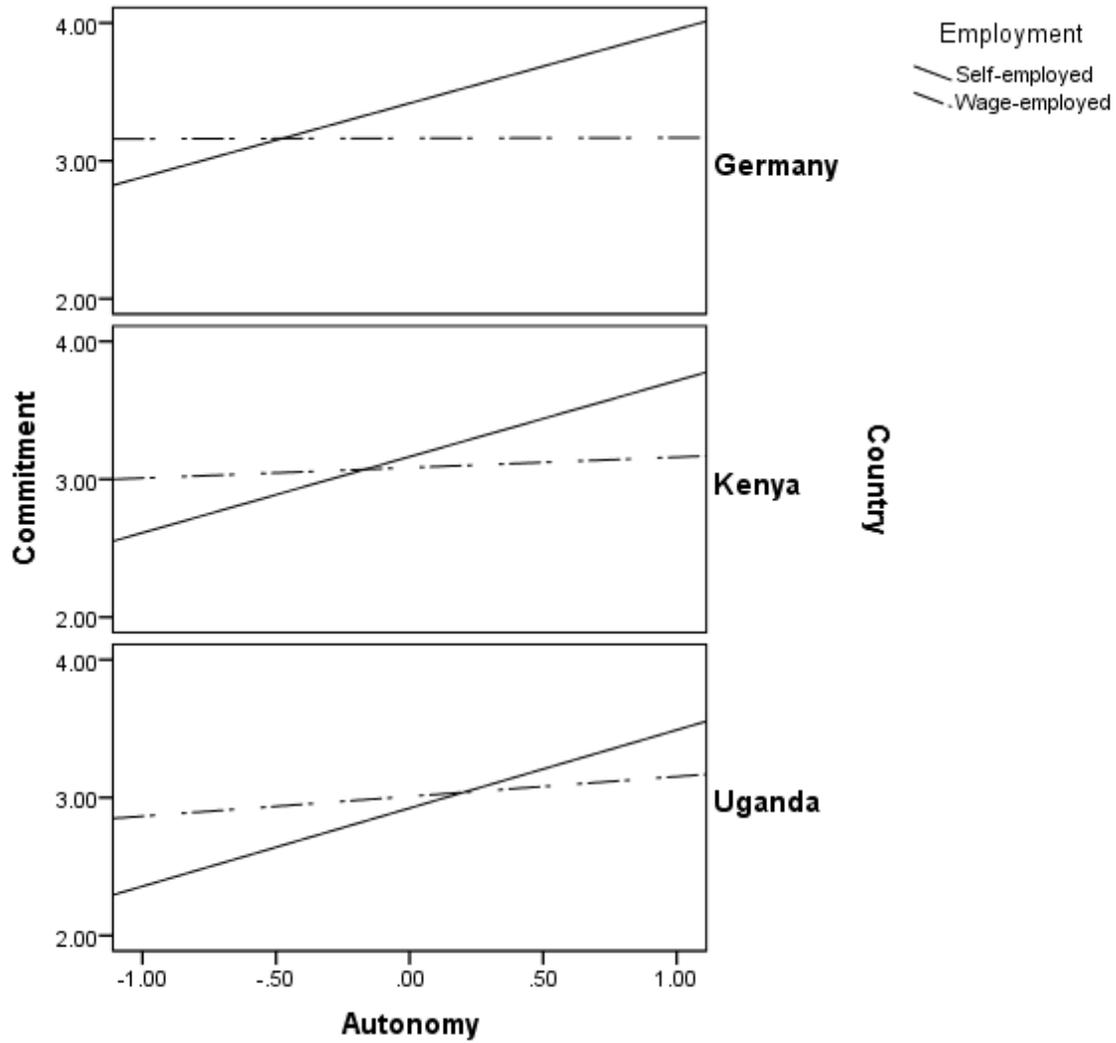
HS = high school, TC/D = technical or professional certificate or diploma,

**Table 3**

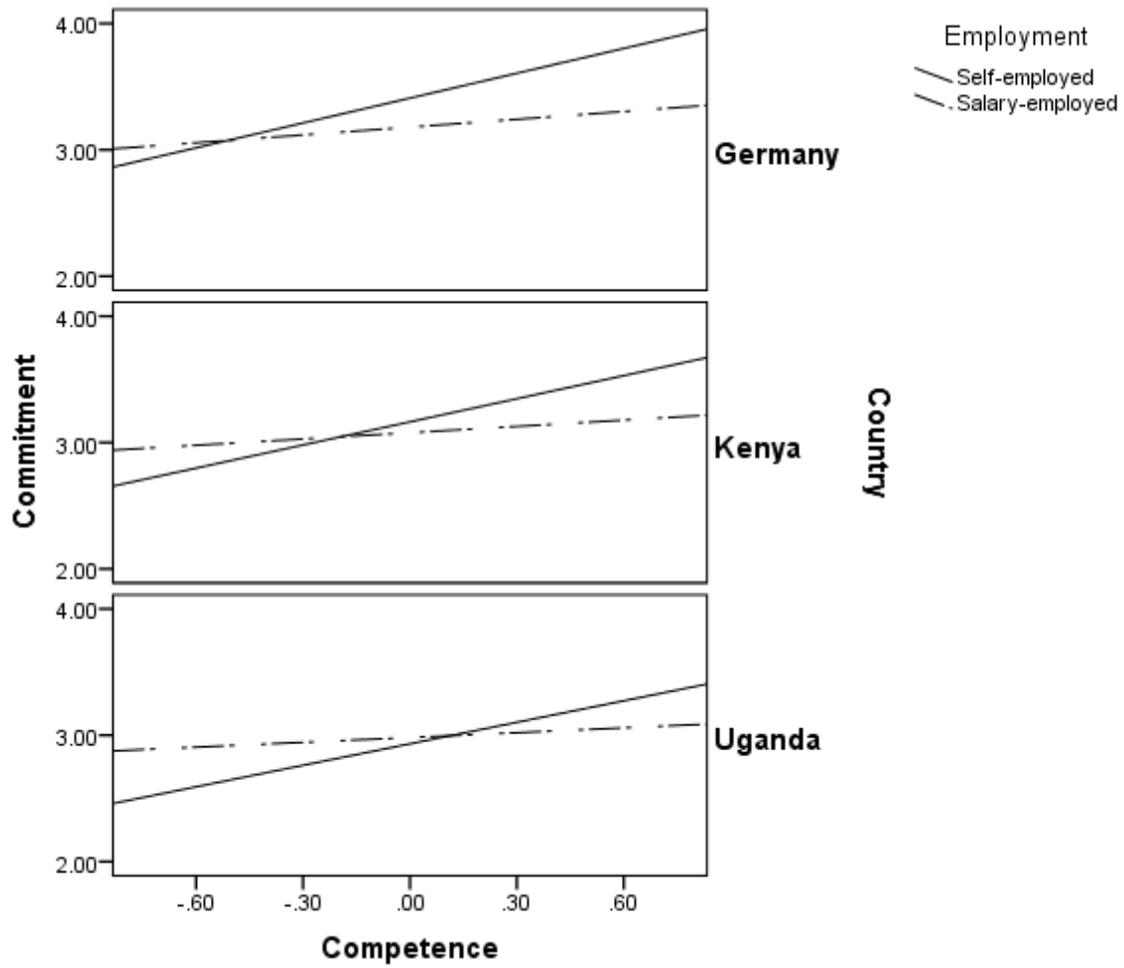
**Regression results for moderated moderations of eudaimonic wellbeing and intrinsic job satisfaction on career commitment**

Predictors	Model 1			Model 2			Model 3			Model 4			Model 5			
	Autonomy (X <sub>1</sub> )			Competence (X <sub>2</sub> )			Relatedness (X <sub>3</sub> )			Meaning in life (X <sub>4</sub> )			Intrinsic JS (X <sub>5</sub> )			
	<i>B</i>	<i>SE</i>	<i>95%CI</i>	<i>B</i>	<i>SE</i>	<i>95%CI</i>	<i>B</i>	<i>SE</i>	<i>95%CI</i>	<i>B</i>	<i>SE</i>	<i>95%CI</i>	<i>B</i>	<i>SE</i>	<i>95%CI</i>	
Intercept	2.83	.20	[2.45, 3.22]	2.86	.19	[2.48, 3.24]	2.73	.19	[2.37, 3.11]	3.09	.17	[2.76, 3.42]	2.81	.19	[2.44, 3.18]	
Sex	-.04	.07	[-.18, .11]	-.03	.07	[-.17, .11]	-.03	.07	[-.17, .11]	.01	.06	[-.12, .13]	-.03	.07	[-.16, .11]	
Age	.09	.04	[.01, .17]	.09	.04	[.00, .18]	.08	.04	[-.00, .16]	.04	.04	[-.04, .12]	.07	.04	[-.01, .15]	
Education	.02	.04	[-.05, .10]	.01	.04	[-.07, .09]	.05	.04	[-.02, .13]	.00	.03	[-.07, .07]	.01	.04	[-.06, .09]	
Employ.	-.08	.07	[-.22, .06]	-.09	.07	[-.23, .05]	.01	.08	[-.14, .16]	-.45	.07	[-.58, -.32]	.26	.07	[.12, .40]	
Country	.20	.05	[.11, .30]	.21	.05	[.12, .31]	.26	.05	[.16, .35]	.08	.04	[-.00, .17]	.02	.05	[-.08, .12]	
Autonomy	.29	.06	[.16, .41]													
Competence				.36	.07	[.23, .49]										
Relatedness							.19	.07	[.05, .34]							
Meaning in life										.38	.04	[.31, .45]				
Intrinsic JS													.55	.06	[.43, .67]	
X × Employ.	-.48	.13	[-.74, -.22]	-.44	.14	[-.72, -.17]	-.28	.16	[-.60, .05]	-.57	.06	[-.70, -.45]	-.37	.13	[-.63, -.11]	
X × Country	-.06	.08	[-.22, .10]	.06	.08	[-.11, .22]	-.12	.08	[-.26, .03]	.03	.05	[-.06, .12]	.19	.07	[.05, .34]	
Employ × country	-.23	.10	[-.42, -.03]	-.19	.10	[-.38, .01]	-.35	.11	[-.56, -.14]	-.06	.08	[-.23, .10]	-.05	.11	[-.27, .16]	
X × employ. × country	-.07	.18	[-.42, .27]	-.01	.18	[-.36, .34]	.50	.16	[.18, .82]	.05	.08	[-.13, .22]	-.34	.16	[-.66, -.03]	
R <sup>2</sup>	.11			.11			.09			.31			.18			
ΔR <sup>2</sup> due to 3-way interaction	.00		<i>p</i> = .681	.00		<i>p</i> = .972	.02		<i>p</i> = .002	.00		<i>p</i> = .595	.01		<i>p</i> = .032	
F	7.56		<i>p</i> = .000	7.88		<i>p</i> = .000	5.85		<i>p</i> = .000	77.49		<i>p</i> = .000	19.48		<i>p</i> = .000	
Conditional effects of X on commitment by country and employment status																
Uganda	Self-employed	.57	.18	[.22, .92]	.57	.19	[.19, .94]	.64	.25	[.15, 1.13]	.70	.04	[.62, .78]	.48	.19	[.11, .84]
	Salary-employed	.14	.07	[.01, .28]	.13	.07	[-.01, .26]	-.00	.06	[-.11, .11]	.09	.07	[-.05, .23]	.36	.07	[.22, .49]
Kenya	Self-employed	.55	.12	[.32, .79]	.61	.13	[.37, .86]	.35	.16	[.04, .66]	.70	.03	[.64, .76]	.76	.11	[.53, .99]
	Salary-employed	.08	.06	[-.04, .20]	.17	.07	[.04, .29]	.07	.05	[-.02, .16]	.12	.06	[.02, .24]	.39	.06	[.28, .50]
Germany	Self-employed	.54	.15	[.24, .83]	.66	.14	[.38, .93]	.04	.10	[-.15, .23]	.70	.05	[.60, .80]	1.05	.12	[.82, 1.29]
	Salary-employed	.01	.10	[-.20, .21]	.21	.11	[-.01, .42]	.15	.08	[-.01, .30]	.16	.09	[-.01, .35]	.42	.09	[.24, .60]
Conditional effects of X × employment status on commitment by country																
Uganda		-.42	.19	[-.80, -.05]	-.44	.20	[-.84, -.04]	-.64	.26	[-1.14, -.14]	-.61	.08	[-.77, -.45]	-.12	.20	[-.51, .27]
Kenya		-.48	.13	[-.74, -.22]	-.44	.13	[-.72, -.17]	-.28	.16	[-.60, .05]	-.57	.06	[-.70, -.45]	-.37	.13	[-.63, -.11]
Germany		-.53	.18	[-.89, -.18]	-.45	.18	[-.81, -.09]	.11	.13	[-.14, .36]	-.54	.10	[-.74, -.34]	-.64	.15	[-.93, -.34]

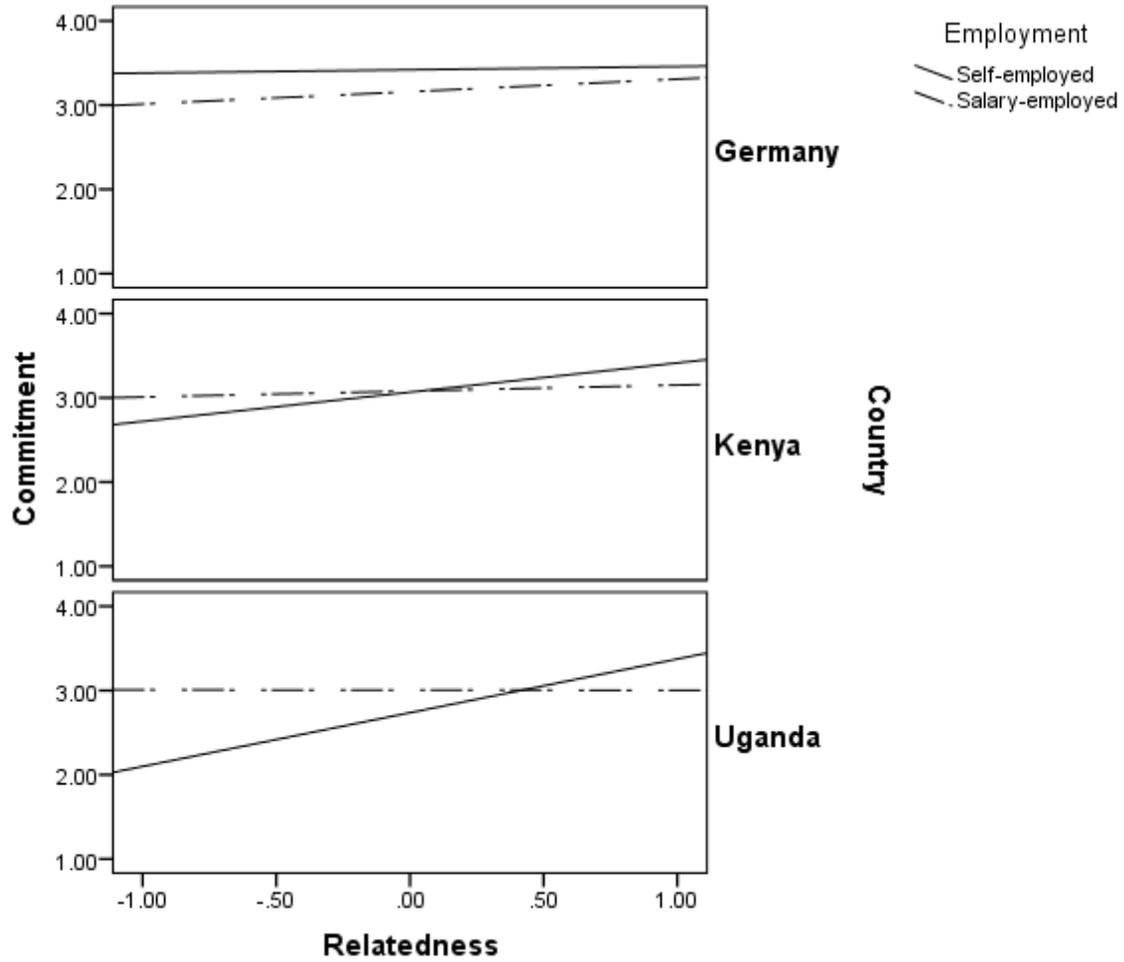
X = predictors of commitment; CI = Confidence interval; Employ. = Form of employment; JS = Job satisfaction; Bootstraps = 5,000



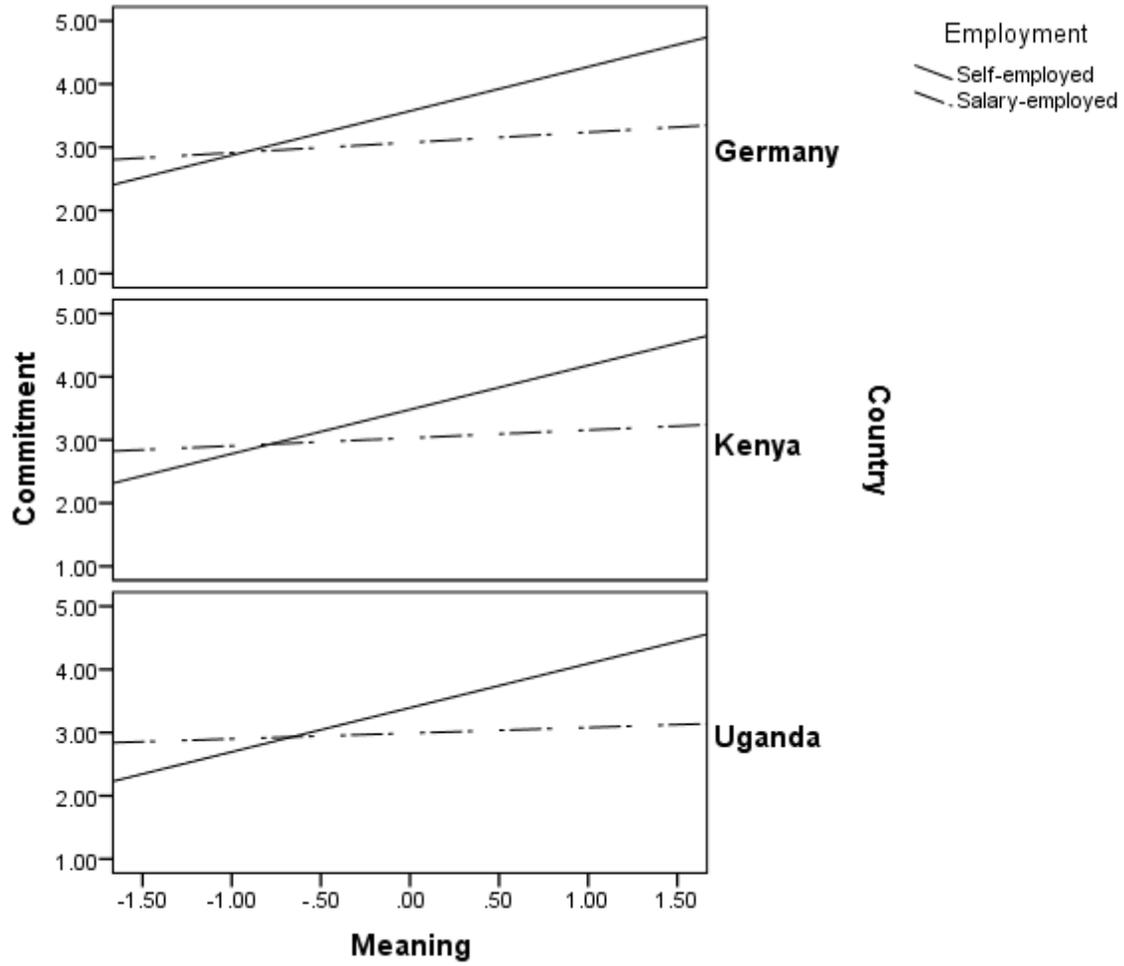
**Figure 1.** Three-way interaction effect of autonomy, form of employment and country on career commitment



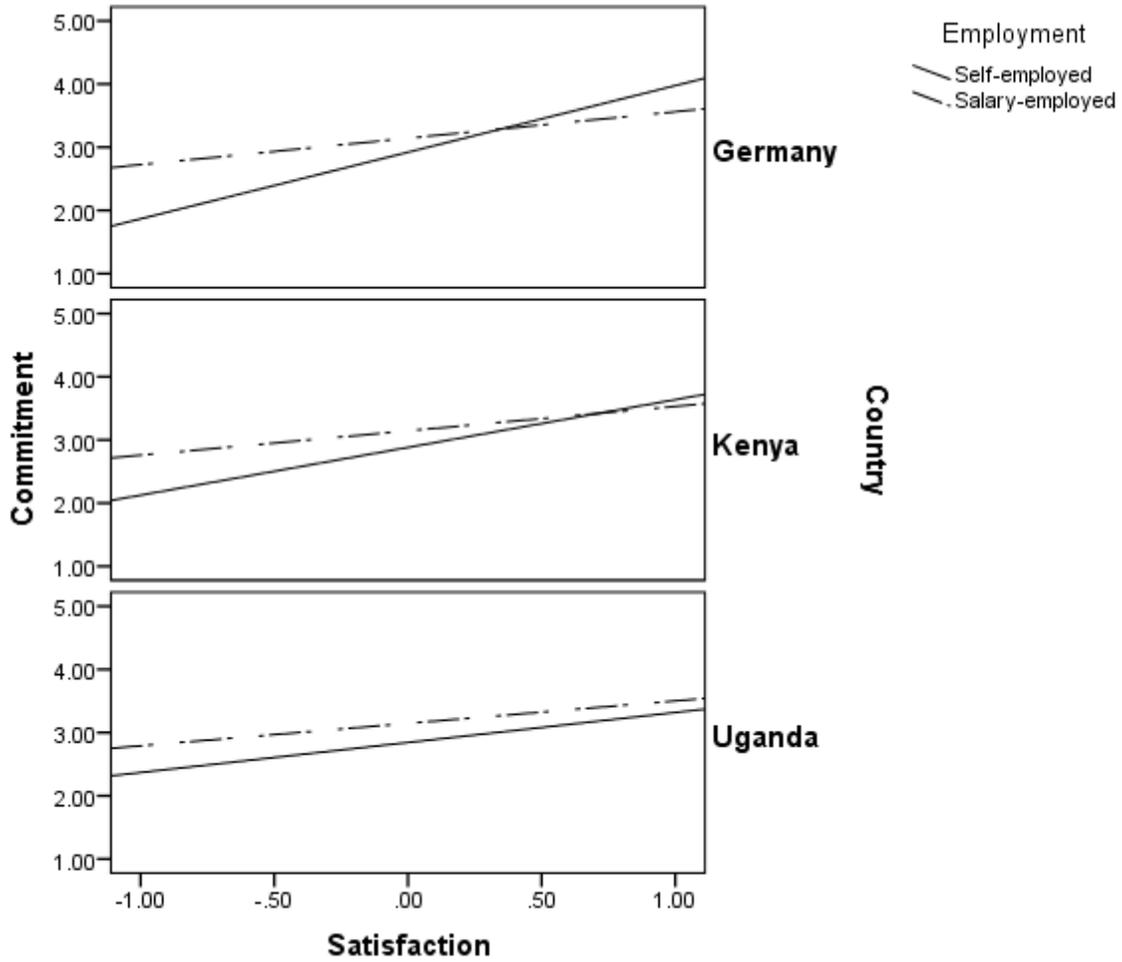
**Figure 2.** Three-way interaction effect of competence, form of employment and country on career commitment



**Figure 3.** Three-way interaction effect of relatedness, form of employment and country on career commitment



**Figure 4.** Three-way interaction effect of meaning in life, form of employment and country on career commitment



**Figure 5.** Three-way interaction effect of intrinsic job satisfaction, form of employment and country on career commitment.

## Curriculum Vitae

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### Education

11/2014 – 12/2017 Doctoral Candidate and DAAD Scholar; Faculty of Psychology, Philipps-University Marburg.

08/2011 – 08/2013 Master of Organizational Psychology; Makerere University, Kampala, Uganda  
 Dissertation title: Personality, psychological capital and startup capital – entrepreneurial success relationship  
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09/2000 – 07/2003 Bachelor of Community Psychology; Makerere University, Kampala, Uganda  
 Dissertation title: Knowledge, attitudes and practice of sexual behaviors among university students  
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02/1998 – 12/1999 High School/ Uganda Advanced Certificate of Education; Saad Secondary School, Kasese, Uganda

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### Work Experience

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03/2013 – 06/ 2013 Trainee in Organizational Consulting; Partners in Learning and Action (PILA Consultants), Kampala, Uganda

- 06/2011 – 07/2011 Part-time Lecturer in Psychosexual Issues; Bugema University Postgraduate School, Kamapala, Uganda
- 11/2007 – 06/2013 Programme Officer – Programme Development, Monitoring & Evaluation, Special Projects, African Network for Prevention & Protection Against Child Abuse & Neglect (ANPPCAN) Uganda Chapter
- 05/2005 – 12/2006 Volunteer Counselor in the Community Mental Health Project, Kamwokya Christian Caring Community (KCCC), Trinity Catholic Parish, Kampala, Uganda

### **Publications**

- Otto, K., Roe, R., Sobiraj, S., **Baluku, M. M.**, & Garrido Vásquez, M. E. (2017). The impact of career ambition on psychologists' extrinsic and intrinsic career success: The less they want, the more they get. *Career Development International*, 22, 23-36. doi: 10.1108/CDI-06-2016-0093
- Baluku, M. M.**, Kikooma, J. F., & Kibanja, G. M. (2016a). Does personality of owners of micro enterprises matter for the relationship between startup capital and entrepreneurial success? *African Journal of Business Management*, 10(1), 13-23. doi:10.5897/AJBM2015.7738
- Baluku, M. M.**, Kikooma, J. F., & Kibanja, G. M. (2016b). Psychological capital and the startup capital–entrepreneurial success relationship. *Journal of Small Business & Entrepreneurship*, 27-54. doi:10.1080/08276331.2015.1132512

### **Conference Presentations**

- Baluku, M. M.** & Otto, K. (2017, September). Impact of Mentoring, Attitudes, and Psychological Capital on Self-Employment Intentions and Entry: A Cross-Cultural Comparison. Paper presentation at the 12th European Conference on Innovation and Entrepreneurship 21 - 22 September 2017, Paris, France.
- Baluku, M. M.**, Kikooma J. F. & Otto, K. (2017, September). Psychological Capital and Entrepreneurial Outcomes: The Moderating Role Social Competences. Poster presentation at the 12th European Conference on Innovation and Entrepreneurship 21 - 22 September 2017, Paris, France.
- Baluku, M. M.** & Otto, K. (2017, May). Applying self-determination theory to entrepreneurial intentions: The moderating role of autonomy in the mentoring – intentions relationship. Paper presentation at the 18th congress of the European Association of Work and Organizational Psychology, Dublin, Ireland.

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- Baluku, M. M., Otto, K., & Bantu, E. (2016, August).** Cultural orientation, cultural intelligence and subjective success in self-employment. The 23rd Congress of the International Association for Cross-Cultural Psychology, Nagoya, Japan.
- Baluku, M. M., Otto, K., & Bantu, E (2016, August).** Cultural Orientation, Entrepreneurial Attitudes and Intentions for Self-Employment Among Undergraduate Students in East Africa. The 23rd Congress of the International Association for Cross-Cultural Psychology, Nagoya, Japan.
- Baluku, M. M. & Otto, K. (2016, August).** The effect of Cognitive Styles, Cultural Orientation and Moral Propensity on willingness of Unemployed Youths to go into Self-employment. The 23rd Congress of the International Association for Cross-Cultural Psychology, Nagoya, Japan.
- Baluku, M. M., Otto, K. & Nansamba J. (2015).** Positive psychological capital, career engagement, career satisfaction, perceived employability and adjustment to school-to-work transition. 2nd East African Regional Conference of Psychology (EARCP2015, November 8th – 13th). Nairobi, Kenya.
- Baluku, M. M., Otto, K., Kikooma, J. F., & Nansamba J. (2015).** Locus of control, cognitive styles, moral intelligence and job satisfaction as predictors of unethical employee behavior. 2nd East African Regional Conference of Psychology (EARCP2015, November 8th – 13th). Nairobi, Kenya.
- Baluku, M. M., Kikooma, F. J., & Kibanja, M. G. (2013, November).** The moderating influence of personality and psychological capital on the startup capital – entrepreneurial success relationship. Presentation at the First Eastern Africa Regional Conference on Psychology (EARC), Kampala, Uganda.

### **Erklärung der Verfasserin**

Ich versichere, dass ich meine Dissertation „The Self-Employment Process: A Discourse of Psychological Attributes and Entrepreneurial Socialization“ selbstständig ohne unerlaubte Hilfe angefertigt und mich dabei keiner anderen als der von mir ausdrücklich bezeichneten Quellen und Hilfen bedient habe.

Die Dissertation wurde in der jetzigen oder einer ähnlichen Form noch bei keiner anderen Hochschule eingereicht und hat noch keinen sonstigen Prüfungszwecken gedient.

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Ort, Datum

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Martin Baluku